

HALLECK'S AMERICAN HISTORY SERIES

MAKERS OF OUR NATION



HALLECK AND FRANTZ

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LEADERS OF THE LEWIS AND CLARK EXPEDITION, ON THE COLUMBIA RIVER

Frontispiece

HALLECK'S AMERICAN HISTORY SERIES

MAKERS OF OUR NATION

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HALLECK'S AMERICAN HISTORY SERIES

FOUNDERS OF OUR NATION

MAKERS OF OUR NATION

OUR NATION'S HERITAGE

HISTORY OF OUR COUNTRY FOR HIGHER GRADES

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HALLECK AND FRANTZ, MAKERS OF OUR NATION

W. P. 4

MADE IN U.S.A.

PREFACE

THE story told in these pages begins with the patriots who won our independence and continues almost to the present. It is told in a way easily understood by those who are studying this period for the first time.

The authors use biography when that serves best to tell the story, but they also employ simple historical narrative when needed. There are no stray biographies in this text. All are logically related to some definite problem.

This story aims to give enough outstanding facts to show the pupil how the work of the patriot, pioneer, inventor, explorer, captain of industry, and altruist has made the United States a leading nation of the world.

In writing the book, the authors have tried to follow their own creed in teaching — namely, to be simple, direct, concrete, vivid, ethical, and to present life and its ideals in action.

Children love action. The authors have tried to make this book a story of action. All the characters are doers of deeds that helped to make their country. The children themselves are given a list of *Things to Do* at the end of each chapter.

It has been the aim to avoid abstractions and to appeal definitely to the child's imagination. Every experienced teacher knows that the pupil's imaginative interpretation of admirable acts tends to result in like acts. This tendency makes the history of this period a gripping lesson in morals. The ideals of the makers of our country and of the doers of kind deeds in more recent times can scarcely fail to influence conduct if they are so presented as to appeal to the pupil's imagination.

Many of the deeds described in this book make a dramatic as well as an ethical appeal to children. More than twenty simple little scenes or plays are suggested to pupils for acting. The scenery, as in Shakespeare's time, may be supplied by the imagination.

An elementary text or story has less interest for pupils if the teacher calls attention to the framework. Yet teachers should keep in mind that this book is unobtrusively planned as a series of outstanding problems, beginning with: Why did we wish independence?

A list of *Books That Will Help You* is given at the end of each chapter. While these books are for the pupil, it is suggested that the teacher read to the class short selections from some of them. Pupils may thus become interested in reading for themselves. Under *References for Teachers* books are listed for those teachers who wish to make a special study of the subject.

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PATRICK HENRY SPEAKING AGAINST THE STAMP ACT, 1765

CHAPTER I

TWO EARLY PATRIOTS

WE Americans had no separate country of our own before our Declaration of Independence (1776). When Columbus discovered America (1492), he found no people here except Indians. Most of the early white settlers of North America came from Spain, England, and France. Spain soon began settlements in Florida and in what is now the southwestern part of the United States. Settlers from England came next and planted colonies in Virginia, Massachusetts, and other places along the Atlantic coast. These settlers spoke English, which is now the language of our country. England and Scotland united (1707) under the name of Great Britain. The English-speaking colonies then became British colonies.

patriots?

Who were the (u)

Remember dates

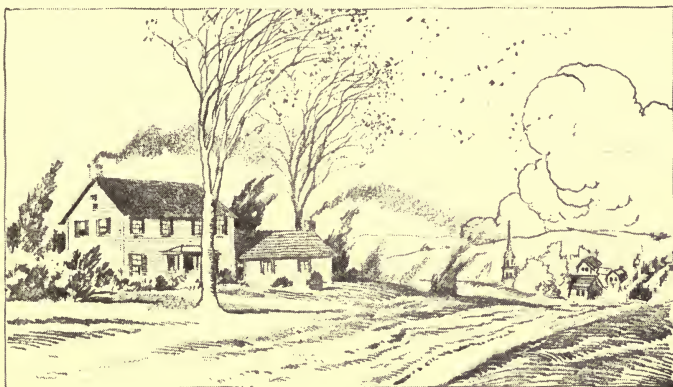
The French held Canada and the great Mississippi Valley. You may remember having read about the French and Indian War (beginning in 1754), in which the British colonists and soldiers from the mother country fought side by side against the French. If the French had won, the language of this country to-day might be French.

The language of this country remained English because Great Britain and her colonists won in the French and Indian War. France had to give up all her land on the continent of North America. After peace was made in 1763, the British lands reached from the Atlantic coast to the Mississippi River. Spain held the land west of it, as shown by the map facing page 1.

At this time the British colonists in America were fewer in number than the people now living in Chicago. They loved their mother country when they fought for her in the French and Indian War. Here is a problem for us to solve. Why did so small a number of colonists soon make a bold stand against the rule of their mother country? The answer to this question is found in the work of certain American patriots. A patriot is one who loves his country. Two early American patriots and leaders were James Otis and Patrick Henry. We shall see how each helped to stir many American colonists to rebel against some of Great Britain's laws that seemed unfair to them.

James Otis : How He Was Trained to Become a Patriot

James Otis (1725-1783) was born at Barn'stable in the British colony of Massachusetts. The old town of Plym'outh, settled by Pilgrims (1620), was not far away. His ancestors came to America soon after the Pilgrims and were of the same English stock.

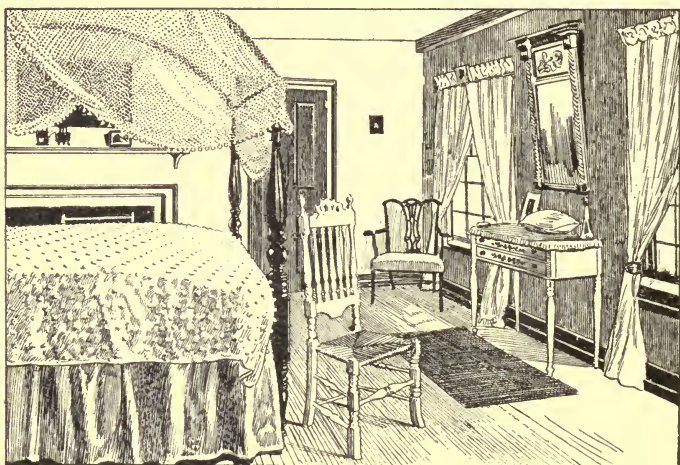


A NEW ENGLAND HOME IN COLONIAL TIMES

Many of the Pilgrims and the other English who came to America in early times were true patriots. They were anxious to do their duty to their fellow men and to their country.

The colonial home training taught the children to do something for each other. The boys drove the cows to pasture, brought them home at night, and milked them. They helped their father raise wheat, corn, and pigs to feed the family. The girls helped

their mother churn butter, bake bread, knit mittens and stockings, and weave cloth to make clothes for all the family. Members of a family learn to love their home by doing things for each other. It is but a step from love of home to love of country. The life of the colonial family naturally made its members patriots. Otis had a good teacher, as well as a good home. He



BEDROOM IN A NEW ENGLAND HOUSE

Some of the colonists lived in comfortable, well-furnished houses, like the one pictured here, but most of them had poorer homes.

was taught that doing one's duty is the greatest aim in life. His training in both home and school fitted him to be a patriot.

Otis went to Harvard College and then became a lawyer in Boston. He was so noted that the British

king, George III, chose him to attend to the government's law cases in Boston. He thus had the chance to make a fortune as a lawyer. It was while holding this position that Otis became a great American patriot.

The Colonists Complain When Great Britain Taxes Them

For hundreds of years the English people have had the right to choose men, called "represent'atives," to send to Parliament (pär'li-ment), the lawmaking body of England. Some of the most important laws made there tell how much money people must pay to the government in taxes.

Before coming to America, the colonists had been promised the same rights as the Englishmen who stayed at home. America was so far away from England that it was not possible to send representatives to the English Parliament. Instead, each colony had its representatives, who met in an assembly somewhere in the colony. This colonial assembly was to the colonist what Parliament was to the Englishman. The representatives decided what taxes the colonists should pay and how the money was to be spent.

After the French and Indian War, Great Britain needed more money than before, for the expenses of the British empire. The British king, George III, thought that he ought to get part of this money from

the colonists. To please him, Parliament passed a bill ordering the colonists to pay a tax or duty on molasses, sugar, tea, cloth, and some other articles brought into the colonies from outside.

The colonists complained: "We have no representatives in Parliament; yet Parliament makes a law forcing us to pay taxes. We will keep Great Britain from collecting the taxes which she has no right to lay upon us." To avoid paying the duty on certain articles coming into the country, colonial ships unloaded such goods at night. The next morning the king's officers could find nothing on board.

The royal officers then were given written papers allowing them to search all stores and homes. They could go into any home without warning and search anywhere. Sometimes they found Dutch linen hidden in a bed, cloth under the floor, and sugar in the cellar.

Why Otis Gave Up a Well-Paid Position

Otis, as the king's officer, was soon ordered to see to the punishment of those who disobeyed the British law about duties. Otis thought that Great Britain had no right to tax the colonists of Massachusetts. He said the colonists were right in refusing to pay the duties. A patriot helps his country when it is in the right, no matter what the cost is to him. Otis said: "I shall sacrifice estate, ease, health, applause, and

even life to the sacred calls of my country." By his "country," he meant Massachusetts. He showed his patriotism by resigning from the King's well-paid service and by defending the colonists without pay.

His Famous Speech

"Every man's house is his castle," was the text of Otis's greatest speech (1761). This means that every man's home should be as safe from intruders as a lord's stone castle. Otis argued that a written order gave the king's officers no real right to search all homes of the colonists. He said rightly that such an order, to be lawful, should name the building to be searched and the things to be sought.

Some who heard that speech called it "a flame of fire" and said that it marked the first birthday of "the child Independence." But for some years yet most of the colonists had no wish for independence. They wanted their rights as Englishmen but they still wished to remain in the British empire.

One of the king's officers, angry at Otis's patriotic words and acts, afterward struck him on the head with a sword. Otis never recovered from the effects of that blow. It made him subject to fits of insanity for the rest of his life. His only reward is a place in his country's history. His unselfish patriotism took us a long way on the road toward independence.

History should Not Teach Hatred

The story of Otis is a sad one, but no historical story should teach us to hate any nation. It is foolish and unfair to hate a nation because of what a few men of that nation once did. All races and nations have some good qualities that we may easily learn to like.

Otis and his wife lived happily together, yet she told him to the end of his life that she thought Great Britain had the right to tax her colonies. Many other colonists agreed with her. Every nation then thought it had such a right. Spain and France taxed their colonies as they chose. The British colonies had just shown their love for Great Britain by helping her fight France. Yet the British colonies were right in objecting to taxes which they had not voted.

Some of the greatest Englishmen agreed with Otis and declared that Great Britain was wrong. They even said they were glad that the Americans had resisted British taxation. Great Britain has since shown that she thinks the American colonies were in the right. She does not to-day tax Canada and Australia, or her other self-governing colonies, without their consent.

Patrick Henry

Patrick Henry (1736-1799) was born near Richmond, Virginia, eleven years after the birth of James Otis. His father had come from Scotland to Virginia. Like

many of the Scotch, he was well educated. Some of Patrick Henry's Scotch ancestors were noted for quick common sense. A swarm of bees, attracted by the beautiful hair of a girl of this family, suddenly lighted on her hair, neck, and shoulders. She escaped being stung to death by doing the right thing. She sat still until the bees discovered their mistake and flew away. She did the right thing in a pinch. If we are asked why Patrick Henry will always be remembered, we must answer that it is because he could say the right thing in a pinch. He is chiefly remembered for what he said at the right time to make men ready to die for liberty. For this reason he is put in the same class with James Otis and called a great patriot.

How Henry was Educated

Patrick Henry went to a common school until he was ten. There were then no free schools in Virginia. Any man could teach without passing an examination. All that a teacher needed was a room, benches, a bell, and a bundle of whips, cut from the forest. Only a few subjects were taught. In school Patrick Henry learned how to read, write, add, subtract, and multiply. His father taught him Latin and Greek, and the boy did not go to college.

Patrick liked hunting better than school, and he often went so far into the forest that he could not hear

the sound of the school bell. He learned the language of birds and animals. He could whistle like a quail and call a flock of wild turkeys by gobbling to them.



PATRICK HENRY CALLING WILD TURKEYS

He provided the family with turkeys to be roasted long before Thanksgiving.

His Success as a Lawyer

Patrick Henry tried keeping a store, but failed. Then he studied law. In three years after he began to practice, he was paid fees in 1100 suits. His success in the Parson's Cause made him famous. In Virginia tobacco was used instead of money. Coins

were very scarce, and a penny then would buy more food, and in most years more tobacco, than ten cents now. Clergymen were paid a salary of 16,000 pounds of tobacco a year. One year when the crop was very small and high-priced, the Virginia colonial assembly made a law that clergymen's salaries and other public expenses might be paid either in tobacco or in money at the rate of two pennies for a pound of tobacco. The clergy appealed to George III, king of Great Britain. He vetoed the Two-Penny Law and said that the clergy should be paid in tobacco.

A clergyman brought suit to compel the payment to him of 16,000 pounds of tobacco (1763). Patrick Henry spoke for the planters in what is known as the Parson's Cause. He boldly said that the king had no right to veto the Two-Penny Law which the people's assembly had passed, and that a king who would act in this way was a tyrant and should not be obeyed.

Patrick Henry said to the jury: "The Virginia court has decided that the planters must pay damages to this parson because he has not received 16,000 pounds of tobacco, but you are not compelled to give him more than one penny." The jury fixed the damages at one penny. The planters paid the one penny with a smile. Patrick Henry became famous for making the law worthless and defying the king. Some

have called this speech in the Parson's Cause the beginning of the Revolution in Virginia.

Attacks the Stamp Act

Great Britain did not collect enough from the tax she had laid on molasses, tea, sugar, and other articles.



HOW SOME OF THE STAMPS OF 1765 LOOKED

They were not like our postage stamps, but were designs pressed into the paper like a notary's stamp to-day.

To get more money from the American colonies, Parliament made another tax law, known as the Stamp Act. This law ordered the colonists to pay for stamps on every deed for land, every note for money, every will, every document used in a law court, and on all advertisements and newspapers.

Patrick Henry became a member of the Virginia colonial assembly (1765). This was the body elected by the people to represent them. Virginia had such a body first (1619); later all the other colonies came to have such an assembly. Henry spoke before the Virginia

assembly (1765) and said that this body elected by the people was the only body that could tax the Virginia colonists. Those who heard his speech against the Stamp Act said that his eloquence was "beyond all power to describe." When he called George III a tyrant for taxing the American colonies without their consent, some of the older members were so shocked that they cried "Treason!" The substance of this speech was afterward read before the other colonies. It made them more determined to resist the Stamp Act. Great Britain took this law off her books the next year.

Liberty or Death

We next see Patrick Henry in St. John's Church, Richmond, Virginia (1775), making one of the greatest American orations. Some of his words spoken in that pinching time are commonly remembered to-day. We ought all to know by heart the last three sentences of his greatest speech. Its seven closing words, given at the end of the next paragraph, had almost as much force as an army in the colonial fight for liberty:

"Is life so dear or peace so sweet as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take, but as for me, give me liberty or give me death."

When Henry spoke these words, he was urging the colonists to fight for their rights in the British empire;



ST. JOHN'S CHURCH, RICHMOND, VIRGINIA

Here Patrick Henry made his famous speech to the Virginia Convention of 1775 in which he said: "Give me liberty or give me death!"

but our war for independence was soon to begin. The next year he urged Virginia to vote for independence. After the Declaration of Independence, he became the first governor of Virginia. Patrick Henry belongs on the list of patriots who helped us secure our independence.

THINGS TO DO

Give a little play to show how the colonial home trained children to do things for others, and helped to make them patriots. Some one may write on the board: "This is a colonial country home in the evening." The pupils may act the part of the boys and girls in a colonial family

and tell each other what they did during the day. The first four books mentioned below under "Some Books That Will Help You" will supply matter for interesting dialogue.

Explain why Otis and Henry are called patriots.

Name some patriots who are living to-day.

Imagine yourself to be a colonist in Boston. Have a talk with a neighbor about Great Britain's tax on molasses, tea, and other articles coming into the colonies.

Listen while your teacher reads Patrick Henry's "Liberty or Death" speech.

Write four sentences telling what our country owes to James Otis and Patrick Henry.

From the map facing page 1 make a list of the thirteen British colonies.

SOME BOOKS THAT WILL HELP YOU

Stone and Fickett, *Everyday Life in the Colonies*.

MacElroy, M. H., *Work and Play in Colonial Days*.

Halleck and Frantz, *Our Nation's Heritage*, 357-376.

Earle, A. M., *Home Life in Colonial Days*.

Brooks, E. S., *Historic Americans*, 34-45 ; 73-85.

Foote and Skinner, *Makers and Defenders of America*, 9-19.

Burton, A. H., *Four American Patriots*, 9-68 (Henry).

Evans, L. B., *America First*, 144-148. (Patrick Henry and the Parson's Cause).

Olcott, F. J., *Good Stories for Great Birthdays*, 315-323. (Patrick Henry, May 29).

REFERENCE FOR TEACHERS. — Morgan, G., *True Patrick Henry*.



THE BOSTON TEA PARTY

An Englishman called it "Making tea for the codfish."

CHAPTER II

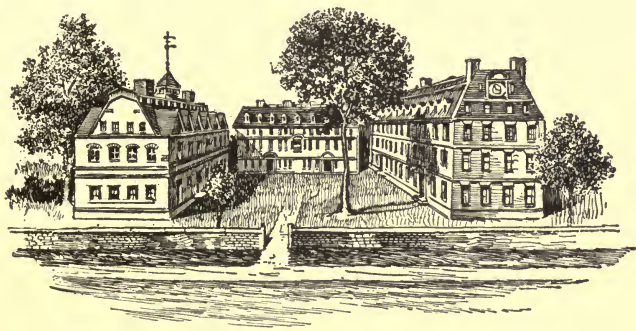
SAMUEL ADAMS

SAMUEL ADAMS (1722-1803) was born in Boston, Massachusetts. His ancestors came from England. Like James Otis and Patrick Henry, he was a famous patriot. He and Henry were working at the same time for the independence of our country. When Henry was a boy he often kept out of sound of the school bell so that he could hunt. Adams did not hunt. He attended school as regularly as a clock. When he was seven years old he went to the famous Boston Latin school (founded 1635).

Latin and Greek were the subjects mostly studied in that school. The boys did not study English grammar. They learned their English by translating Latin and

Greek. John Hancock, afterwards a rich merchant, a patriot, and the first signer of the Declaration of Independence, learned to write his English translations in the Boston Latin school. He could write in letters so large that they looked like the tracks of young chickens (p. 27). He used those large letters in signing the Declaration of Independence, so that the British King George III could read them without spectacles.

Adams took his degree from Harvard College at about the age when a boy now graduates from a high school.



AN EARLY VIEW OF HARVARD COLLEGE, 1720

Redrawn from an old print.

Harvard was then better than our present high schools only in the study of Latin and Greek. Somehow the study of these dead languages taught Samuel Adams to write English that made the men of Massachusetts want freedom.

The Men Who Followed Adams

From boyhood Adams liked men who wore leather aprons and worked with their hands. He loved to watch the blacksmiths hammer out bolts and forge chains and anchors. He sat in meetings of the ship-builders, who hewed and planed timbers and planks. He talked with the ropemakers, and with the calkers who put oakum and tar between the planks to keep the ship from leaking. "How did you hurt your hand, Tom?" he asked a ropemaker who was twisting rigging for a ship. "Knife slipped," answered Tom in the friendliest way.

He was a leader in political clubs made up of painters, printers, captains, carpenters, silversmiths, and all who worked on ships. All knew that he was their friend. He never once deceived them. He used his strong political influence to secure more liberty, but never for his own gain.

A Statesman Who was also a Politician

Adams came from one of the best families in Boston. He was a member of the famous New England Adams family that has given our country more Presidents and statesmen than any other family in our history. A statesman is a man who is skillful in helping his country and guiding her in the right path. A statesman helps to steer the ship of state

and tries to keep her clear of rocks and shoals. Adams helped to bring our ship of state into the harbor of liberty.

It may surprise us to know that Samuel Adams was one of the greatest politicians in American history. He would have said that a politician is one who tries to lead men to vote for what will help most of the people of their country. Our country has sometimes had good politicians. There will be more of them in the future if those who study the lives of men like Samuel Adams will imitate them.

The king of Great Britain tried to bribe Adams by gifts of offices that would have made him wealthy. Adams refused them all. Some modern politicians would call him crazy. Yet it is to patriots and politicians like Samuel Adams that we owe our independence. We are in debt to men like him for the chance to live under the best government in the world.

The Man of the Town Meeting

A town meeting in New England was a meeting of the voters in a town. A New England town is much like a township in other parts of the country. It usually includes many farms besides a little village. The people came to town meetings to vote on questions concerning the government of the town. The town meeting hired teachers and voted money to build



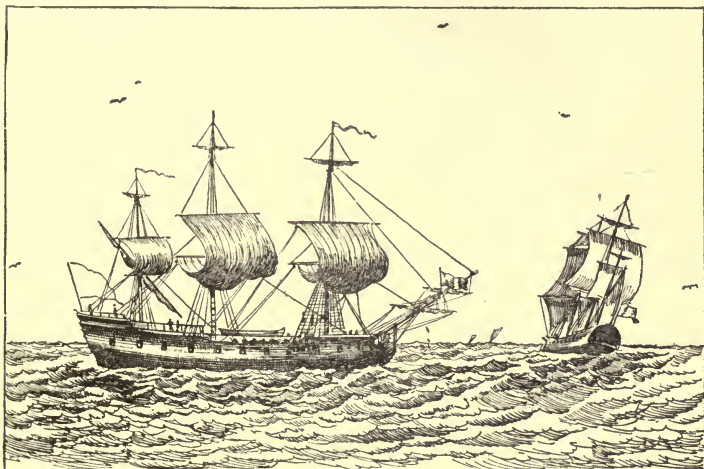
SAMUEL ADAMS ADDRESSING A TOWN MEETING

schools. The Boston Latin school was founded by a town meeting. The town meeting fixed the taxes, and elected tax collectors, overseers of the roads, and other town officers.

Samuel Adams has been called the man of the town meeting. He showed his greatest skill in using the town meeting as a good workman would use a tool. He used the town meeting to make the men of Massachusetts wish to govern themselves as an independent state.

How Taxes Led to Trouble

Adams spoke and wrote against the Stamp Act (p. 12). He told the men of Boston and of Massachusetts that they had the English right to decide what taxes they should pay. The people of Massachusetts



THE *BETHEL*, A SAILING SHIP OF THE TIME OF THE REVOLUTION

Redrawn from an old print.

and other colonies took his advice and would not allow the stamped paper to be sold.

One of John Hancock's ships reached Boston Harbor in the night and landed her cargo. The king's officers who failed to collect the duty seized the vessel. A crowd of Adams's friends chased them out of Boston. Great Britain sent two regiments of red-coated soldiers

to Boston to keep order and see that the duties were collected.

Before long there was trouble. Adams's dog Queue (kū) showed his master's dislike by making war on the British soldiers. Whenever he saw a British red-coat, he made a dash for him. The soldiers cut the dog with swords and shot him in several places, but he lived to show his honorable scars.

Bloodshed in Boston

One night when a crowd was jeering the soldiers, boys threw snowballs at them. The soldiers fired into the crowd and killed five. Boston was in an uproar. A town meeting was called and appointed a committee with Adams at the head to demand that the soldiers be removed from Boston. The British governor offered to remove only one regiment, the one that had done the firing.

Adams went back to the meeting of three thousand people who were waiting for his word. As he passed to the platform, he bowed each way and said rapidly: "Both regiments or none!" The crowd knew what he wanted. When he spoke to them from the platform, he said: "The British governor says he will send away only one regiment. What is your pleasure?" The crowd roared: "Both regiments or none!" The British governor sent both regiments away to an island

in Boston Harbor. He knew there would be an uprising if he refused.

Adams formed a plan which took the place of newspapers in spreading a desire for independence. He had the Boston town meeting appoint committees of correspondence to write to other towns to let them know how their liberties were threatened. This plan spread to all the colonies and caused the people in them all to think more and more alike.

The Boston Tea Party

Adams fought taxation by Great Britain and caused others to fight it so hard that Great Britain took off most of the new duties on things brought into the colonies. She kept a low tax on tea merely to show that she had the right to tax. But she planned to have tea sold cheaper in the colonies than in Great Britain and cheaper than it could be bought from other nations.

Most of the colonists, however, wanted her to give up the right to tax anything. They said that the right to tax the colonists should belong only to the assembly of each colony, elected by the people.

One day three ships loaded with tea sailed into Boston Harbor. A mass meeting was called to consider the question. Adams moved that the tea should not be landed. There was not a vote against the motion. The governor was asked to send the tea back

to England. He replied that the tea must be landed. When this answer was brought to the meeting, Adams rose and said: "This meeting can do nothing more to save the country."

His followers knew what this statement meant. A number of men, dressed like Indians, then gave war whoops and rushed on board the ships. These so-called Indians broke open all the chests of tea and emptied their contents overboard. This gathering (1773) has been called the Boston Tea Party.

The British Parliament ordered the port of Boston closed until the tea should be paid for. British men of war were in Boston Harbor to prevent any trade by sea. Shipbuilding came to an end. Many were soon without work and hungry. The other colonies sent them food.

The First Continental Congress

The leading colonies agreed that there should be a Congress or meeting of delegates in Philadelphia to decide what should be done.

Samuel Adams wished to have the delegates from Massachusetts elected at a meeting of the colonial assembly. He knew that the British governor, General Gage, would stop the meeting if it did not suit him. Adams formed two daring plans: (1) to lock the doors of the place of meeting, and (2) to elect five delegates

to the first Continental Congress while the doors were locked.

One man claiming to be very ill escaped from the meeting and told the governor. He at once wrote an order to end the meeting and sent his secretary to read the order. The secretary pounded on the door, but Adams kept it locked until the delegates were elected. Adams was one of those chosen. He then had the door unlocked, and the secretary rushed in to find the business finished.

Samuel Adams was the leader of those who urged resistance to Great Britain when the members of the first Continental Congress met at Philadelphia in 1774. He said that one freeman was worth more to his country than a thousand slaves. The Congress decided that the colonists ought to resist British taxation, and that a second Continental Congress should be called if the taxes were not removed.

War Begins

The British king kept up his determination to tax the colonies. A few months after the first Continental Congress adjourned, General Gage gave orders to arrest Samuel Adams and John Hancock, who had sided with Adams. Gage wished to send them to England to be tried for treason. The king was willing to forgive everybody but these two. Adams

said that he felt it an honor to be named first by the king.

General Gage sent his soldiers by night to Lexington, Massachusetts (map, p. 46), to seize Adams and



PAUL REVERE WARNING COLONISTS THAT THE BRITISH WERE COMING

Hancock. Paul Revere galloped ahead to Lexington and awakened them. They hurried to a place of safety. The British soldiers fired on a group of colonists who tried to bar their way at Lexington. Then they went on to Concord (kong'kerd) to destroy some supplies stored there for colonial soldiers. In the fighting that followed, the British lost heavily as they retreated to Boston.

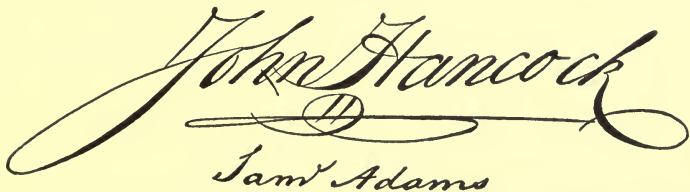
When Adams heard the musket fire at Lexington, he exclaimed: "What a glorious morning!" The War of the Revolution had begun (April 19, 1775). The work of Adams had not been in vain. More than any other man, he had helped bring on the Revolution. The war at first was a war for the rights of the colonies, but it soon became a war for independence, as Adams hoped it would be.

His Place in Our History

Samuel Adams owes his place in our history to his success in making Americans wish to govern themselves. He made many men willing to fight to gain their independence.

Adams was an honest politician, willing to give his all for his country. He often risked his life for the cause of liberty. He never wished to make money, and he died poor. Officers of the king tried to bribe him, but there was not gold enough in the world to bribe Samuel Adams.

He was one of the signers of the Declaration of

The image shows two handwritten signatures in cursive. The top signature is "John Hancock" in a large, bold, and highly stylized script. Below it, separated by a horizontal line, is the signature "Saml Adams" in a smaller, more compact cursive hand.

SIGNATURES OF JOHN HANCOCK AND SAMUEL ADAMS TO THE DECLARATION
OF INDEPENDENCE

Independence. He lived to see the colonies win the Revolution and become independent of Great Britain. He was three times elected governor of Massachusetts.

THINGS TO DO

Explain why workingmen followed Samuel Adams.

Write a short letter, such as a Boston child might have written to a friend in Connecticut, to tell why and how Adams got rid of the British soldiers in Boston.

If your teacher agrees, make a little play from the part of this chapter that tells about the Boston Tea Party.

Imagine that you were at the meeting when five Massachusetts delegates to the first Continental Congress were elected. Tell how Adams made the election possible.

Read or ask your teacher to read to you Longfellow's poem *Paul Revere's Ride*.

Make a list of the ways in which Samuel Adams helped to bring on the Revolution.

SOME BOOKS THAT WILL HELP YOU

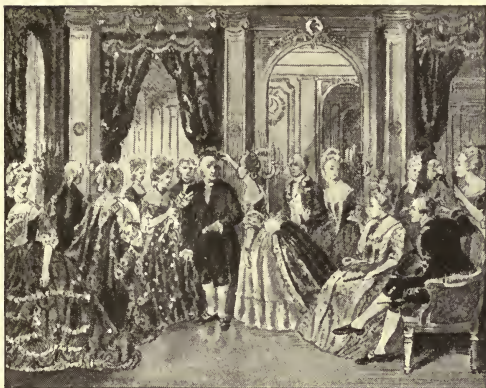
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FRANKLIN AT THE COURT OF FRANCE

CHAPTER III

BENJAMIN FRANKLIN (1706-1790)

BESIDES Otis, Henry, and Adams, another famous patriot was Benjamin Franklin. As you may already know, he was born in Boston, became a printer, and went to Philadelphia when he was still a boy. He had only two years' schooling and never went to school after he was ten years old. In spite of this fact, he became famous in more ways than any other man in our history.

We shall know this wonderful man better if we try to solve these six problems about him :

1. How could a man with only two years' schooling become our best colonial writer?

2. How did he become America's greatest teacher of thrift and saving?

3. How was it possible for him to be a famous scientist, known all over the world?

4. How could he become the most successful foreign minister that our country has ever had?

5. Why has he been called the second most useful man to his country?

6. Why has Philadelphia named so many buildings after him and why does she continue to honor him more than two hundred years after he was born?



FRANKLIN'S BIRTHPLACE

Franklin was one of a large family of children. He remembered that thirteen sat at the table at one time.

Franklin left school at the age of ten. His father, who was a candle maker, then put him to work cutting wicks and filling molds for candles. The boy disliked

this work and went into his brother's printing office at the age of twelve. He often sat up until after midnight to read. He let great men teach him through their books. He spent his money for books such as Bunyan's *Pilgrim's Progress*.

How Franklin Taught Himself to Write English

Franklin, in his *Autobiography*, tells us how he taught himself to become a great writer. We should pay close attention to what he did, for he says that his practice in writing English started him on the road to success.

He began by writing two ballads or stories in verse. One ballad told the story of a captain and his two daughters who had just been drowned. This tale of a recent event had a large sale. The other was the song of a sailor about the capture of the famous pirate Blackbeard.

He and another boy wrote a number of letters which took the form of a debate. The question was: "Shall women be educated?" Franklin took the side of education for women. His father saw the letters and said: "Ben, you can spell and punctuate better than the other boy, but he can express himself better."

Franklin was bright enough to take a hint and act on it. After his father's hint that he needed to know more words, he bought the third volume of the *Spectator*. This was a collection of daily papers or essays, written

in England not long after he was born. Franklin would read carefully a paper in the *Spectator*, such perhaps as the one on *Thrift* (Number 509). In this he might have read: "A penny saved is a penny got." He could have read there also the story of "Hobson's choice." Hobson kept horses for college students to hire. A student always had to choose the horse nearest the door, no matter how many there were in the stable. "Hobson's choice" is thus no choice. After a few days Franklin would try to rewrite the paper. Then he would compare his work with that in the *Spectator*.

Franklin found that he still lacked words for making himself clear. He thought that writing verse was helpful because he had to search for a number of words with nearly the same meaning to make his lines rime. He began to turn some of the *Spectator* papers into verse and then after a while back into prose.

He tried still another way to improve his writing. He wrote in order on separate slips the thoughts in the paper, shuffled them, and tried to get them in the best order when he rewrote the paper. In this way he discovered and corrected many faults. Sometimes he was pleased to find that he gave the thoughts in better order.

Franklin wrote: "I was extremely ambitious to be a tolerable English writer." He was also willing to

pay the price in hard work. He was busy with his exercises in writing after the day's work, or in the morning before it began.

This early practice explains how he came to be America's greatest writer of colonial times, a writer whom the world will not stop reading.

How Franklin Taught Thrift

We must next try to understand how Franklin became the greatest teacher of thrift and saving in America and perhaps the greatest in the world. His *Poor Richard's Almanac* will help us solve this problem. Franklin published this almanac under the name of Richard Saunders, and called him "Poor Richard." An almanac is a book of days and months like a calendar, but gives much more information. Almanacs were then (1733) as much read as the Bible. Franklin sold ten thousand copies of *Poor Richard's Almanac* a year for more than twenty years. Some of the sayings he put in it taught people to be saving of both time and money. Poor Richard says :

"If you would be wealthy, think of saving as well as of getting."

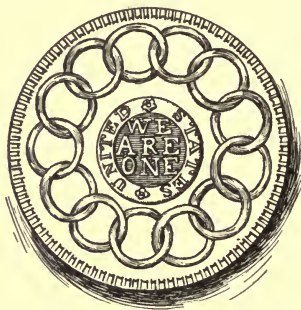
"Lost time is never found again."

"If a man knows not how to save as he gets, he may keep his nose all his life to the grindstone."

"It is hard for an empty bag to stand upright."

“None preaches better than the ant, and she says nothing.”

The most famous of Poor Richard's sayings were gathered together under the title *The Way to Wealth*, in *Poor Richard's Almanac* for 1758. Parts of *The Way to Wealth* have been reprinted in the United States



FRANKLIN PENNY

Franklin made the first penny in the United States. How many rings are there on the side shown at the left? What does each ring represent?

and Europe every year since it first appeared. Banks and insurance companies on both sides of the Atlantic Ocean continue to reprint Poor Richard's sayings because they teach people to save. No other American writer has been quoted so often.

Why His Name is Famous in Science

At the age of forty-two, Franklin had made so much money that he gave up his printing business. He wanted to have more spare time, or leisure. He called leisure the “time for doing something useful.”

He gave some of his leisure to scientific experiments. There are five so-called "jimmy" words beginning with "w," — when, what, who, where, why. They are called "jimmy" words because one uses them to pry out what one wants to know. A man who counted these five words in many letters from all kinds of people, found that "when" was used nearly three hundred times in 100,000 words. "Why" was found least often of the five, — only fifty-two times. Most people are not interested in "why." Franklin always wanted to know *why*. He was perhaps the first boy to ask why a kite should not be used to tow him in swimming across a lake more than a mile wide. He then tried the experiment and succeeded.

Franklin later asked why a kite should not serve to bring him an answer to a question about a thunder-cloud. At the middle of the eighteenth century, the world had no invention that depended on electricity: no electric door bells, no telegraph, no telephone, no electric lights, no radio. Franklin had a glass globe with which he could make electricity by rubbing silk against it. Of course he could not make a large amount of electricity in this way. At first he had no idea of its vast power. He had seen lightning tear trees to splinters. He had seen it light up the entire heaven on a dark night. One day he wondered if electricity and lightning were the same.

A scientist makes experiments to find out whether a guess like that is true. Franklin made a silk kite with a sharp pointed wire at the top. He tied an iron key near the end of the string. When he saw thunderclouds rapidly coming toward him, he sent up his kite, and it disappeared in a cloud. As soon as the string became wet, an electric spark jumped from the key to his hand.

Franklin had the answer to his question (1752). Lightning is electricity. Perhaps he could imagine the thunder answering: "I am the voice of electricity. You have learned my language. I open to you a new door in the palace of marvels. Your children's children shall use my voice to speak across the ocean quicker than your eye can wink. I shall lend them my strength to draw trains which they will invent. I shall lift for them a hundred tons of iron by pressing a button. When you crossed the distance between the earth and my cloud, you became another Columbus. You discovered a new power — a power that never gets tired. Man grows weary and falls asleep, but your new servant electricity shall never tire. Your name shall be known for all time wherever I do man's work or carry his messages."

Franklin was made a member of the great scientific societies of the world. There are books in which we can read the story of his many inventions, — such

as the lightning rod, Franklin bifocal glasses, and the Franklin stove, which made his room twice as warm with one quarter of the wood that he had burned in his fireplace. The governor of Pennsylvania offered to give him a patent for his stove. Franklin said that



FRANKLIN STOVE

The original model is in the possession of
the American Philosophical Society.

he had all his life been making use of what others had done for him and that he was glad to serve others with his inventions. He never took out a patent for any of them. A man in London patented his stove and made a small fortune from it.

Foreign Service

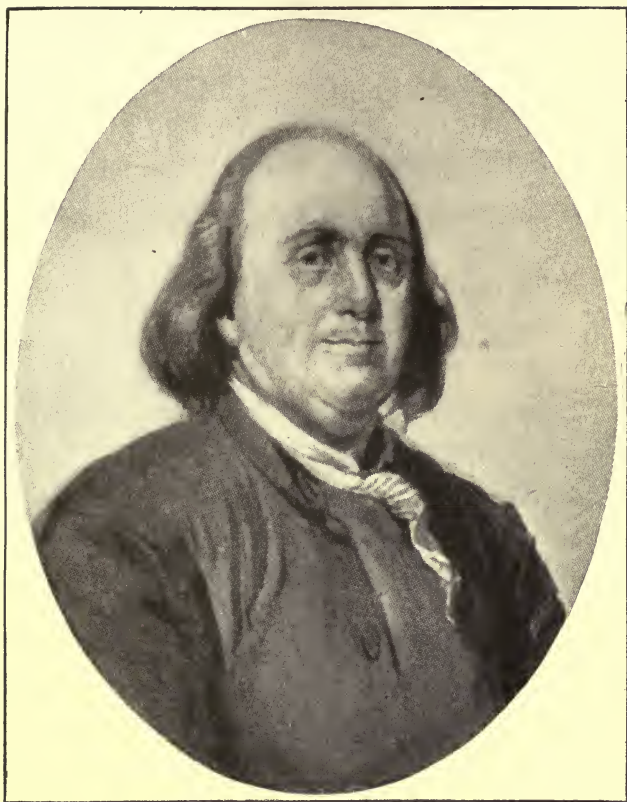
Franklin went to England, where he made a strong plea for the rights of the colonies. His greatest service

abroad came after he had signed the Declaration of Independence. He went to France to get her to aid our army. We were then fighting in the War of the Revolution to secure our independence from Great Britain. We could not have won alone. We needed money, ships, ammunition, and soldiers.

Franklin became the hero of the French nation. The king, the nobles, and the peasants flocked to see him. The French said that he had plucked the lightning from heaven and would tear the scepter from the English king. They called Franklin "the friend of man."

He came to France, wearing a plain fur cap. He put no fashionable powdered wig on his head. Yet the French nobles applauded him heartily when he entered the theater. The common people followed him on the streets. His pictures were almost everywhere. Many of the French enjoyed their snuff better because his picture was on the cover of their snuffboxes.

Franklin knew how to deal with people. He did not get angry when many would have flown into a rage. Years before, he had written in *Poor Richard's Almanac*: "A spoonful of honey will catch more flies than a gallon of vinegar." Franklin liked the French. It was well that the fate of America in France rested in Franklin's hands. A man sent, like Franklin, by our government to act for it in a foreign country, is called an ambassador



BENJAMIN FRANKLIN

or a minister — meaning an agent, not a preacher. Franklin became the most successful foreign minister that we have ever had.

The French would rather grant Franklin a favor than deny him. He had asked for money and supplies.

They gave him more than these. They also declared war against Great Britain and sent ships and soldiers to America. The French disliked Great Britain because she had taken away their North American colonies. The French naturally wanted to help America, but they refused to have anything to do with some other Americans whom we sent to France. They readily went into debt to give Franklin anything that he asked.

In the great battle of Yorktown, we shall see (in the next chapter) that it was the French navy and the French army that gave Washington the strength to strike the final blow for our independence. We should give credit to Franklin for the large part which he played in making the United States.

Why Franklin is Honored

We have two more problems to solve about Franklin : Why has he been called the second most useful man to his country, and Why has Philadelphia named so many buildings after him?

We can almost solve these two problems without learning more about Franklin. But if we could hear the pupils of the schools in Philadelphia talk to us, they could tell us in a very short time that they honor Franklin most for what he did for others. They might quote his favorite saying : "The noblest question

in the world is: *What good may I do in it?*" We might hear them say almost in concert:

"Franklin founded our first fire department. He introduced the paving, lighting, and cleaning of our



Brown Bros.

DORMITORY TRIANGLE AT THE UNIVERSITY OF PENNSYLVANIA

Franklin was one of the founders of this university.

streets. He gave us better policemen. He founded our library and helped to found our first hospital and the University of Pennsylvania.

"He signed in our city two of the greatest documents in American history, the Declaration of Independence and the Constitution of the United States. He signed in Paris our treaty of alliance with France that helped us win the Revolution. The French liked Franklin so much that they were glad to give our country money,

soldiers, and ships to help us win the Revolution. He signed the treaty of peace with Great Britain, giving us our independence. He was the only man who signed all four of these great documents.

“These are some of the reasons why he was followed to his grave by 20,000 of our citizens and why we still honor him. Boston gave Franklin to Philadelphia, and Philadelphia gave him to the world.”

THINGS TO DO

Give the six problems about Franklin. What is your answer to each of those problems?

Tell in order the different ways that Franklin used to teach himself English.

Try writing four lines of riming verse about Franklin.

If you can find Franklin's *Way to Wealth*, select the six of Poor Richard's sayings that you like best.

Tell what reasons Philadelphia pupils might give you for honoring Franklin.

SOME BOOKS THAT WILL HELP YOU

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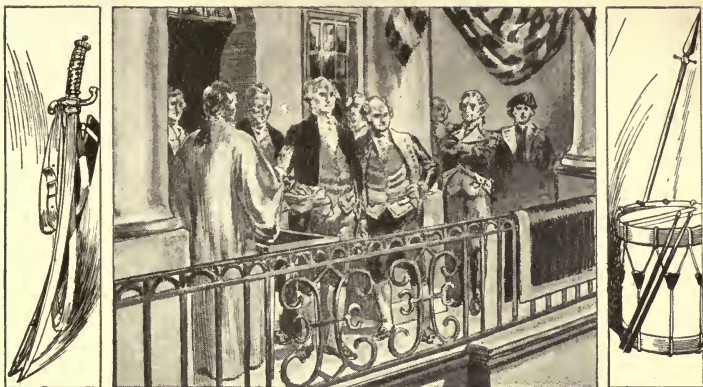
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PRESIDENT WASHINGTON TAKING THE OATH OF OFFICE IN FEDERAL
HALL, NEW YORK

CHAPTER IV

GEORGE WASHINGTON (1732-1799)

His Youth

WE have learned about four patriots, — Otis, Henry, Adams, and Franklin. All of them helped to make our country independent. We shall now study George Washington, who ranks among the greatest patriots of the world. George Washington was born on a plantation in Virginia. Most of us know the day of the month when he was born. Every state of our country has a holiday in honor of his birthday.

Washington kept a diary in which he tells what he did as a boy of sixteen, and later. A great Virginia landholder wished to have his new land west of the Blue Ridge carefully measured, — marked out, and

mapped. He chose Washington to help make this survey because he knew that whatever Washington did, even at sixteen, would be well done.

Here is Washington's first entry in his diary after he and his men had crossed the mountains: "We went through most beautiful groves of sugar trees and spent the best part of the day in admiring the trees and the richness of the land." A few days later he wrote: "This morning went out and surveyed five hundred acres of land. Shot two wild turkeys." A page of his diary tells how a party of thirty Indians on the war-path came toward him, shaking a human scalp and dancing a war dance.

His early companionship with things out of doors taught him to love them all his life. He specially liked trees, and he wrote in his diary about white oak, walnut, cherry, and hickory trees, and a "white-bodied sycamore forty-five feet around." He loved to watch all growing things: the corn peeping above the ground, the fruit trees blossoming, and the fields of wheat waving in the wind. He never tired of looking at such things, which were as interesting to him as moving pictures are to us.

A Dangerous Journey to Warn the French

Washington was early taught to do hard things. An interesting part of his diary tells of a journey from

Virginia to a French fort not far from Lake Erie. The governor of Virginia sent him with a letter telling the French that they must leave the lands which the English claimed. Washington was also to find out all he could about the doings of the French. Before he returned, he had traveled a thousand miles through snow and ice, in pathless forests, across rivers full of floating ice, in one of which he nearly lost his life. He was in constant danger from Indians. Once an Indian fired at him from behind a tree only forty feet away, but missed him.

Washington was then only twenty-one. There were enough other youths of that age in Virginia, but the governor wanted no one but Washington. He was afraid that others might get lost or be scared or say the journey was not possible at that time of year or make one of a hundred other excuses. Washington never once thought of an excuse for failure to do his duty. If he had cared to make excuses, he certainly had enough for returning before he reached his journey's end. But he came back with the news that he was sent to get.

The result of Washington's trip showed that the French meant to take and hold the land in the Ohio Valley. The French and Indian War soon followed. Great Britain sent her General Braddock with an army to take from the French a fort which they had

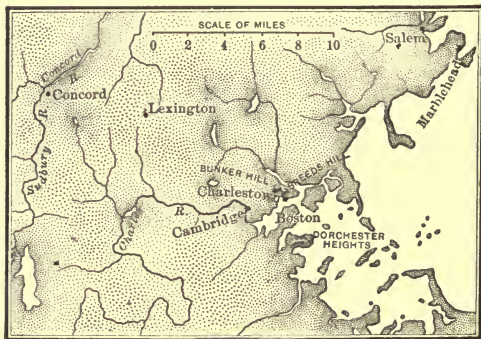
built where Pittsburgh is now. Braddock chose Washington for one of his officers. The British army was within a few miles of the fort, when the French and Indians suddenly poured a deadly fire from behind trees at the solid ranks of the British soldiers.

Braddock was killed, and the battle ended in a terrible defeat for the British. Washington was the hero of that fight. He had four bullet holes in his coat and two horses killed under him. His bravery and skill made him known to all the colonies.

As we have seen (p. 2), France was finally defeated and had to give to Great Britain her land in North America east of the Mississippi River.

Two Important Steps in Our History

We have learned how the War of the Revolution started at Lexington, Massachusetts, when the British



BOSTON AND OTHER TOWNS NEAR IT

army tried to seize Samuel Adams and John Hancock (p. 26). We have seen what the first Continental Congress did (p. 25). The second Continental Congress met in Philadelphia in May, 1775, to plan for the war.

This Congress took two important steps, perhaps more important than any Congress has taken since. (1) It chose George Washington of Virginia to be commander in chief of the colonial armies in the war. He took command of the American forces on July 3, 1775. Soldiers from New England were then holding the British army inside Boston.

(2) The other very important step taken by this Congress was to adopt the Declaration of Independence (July 4, 1776) — just a year and a day after Washington took command of the army. This document declared that the colonies were independent of Great Britain. On that day they took their new name of United States of America. Not until July 4, 1776, could the thirteen English colonies be called really the United States. Our nation has a birthday, just as each of us has, and that is the one most important day in the history of the United States. We have a holiday on July 4 every year in honor of our nation's birthday.

Born to Command

The New England soldiers were justly proud of themselves. They had won the battle of Lexington

and Concord and had fought well in the famous battle of Bunker Hill within sight of Boston, a little later. Men were now coming from all the colonies to be under Washington's command.

A company of Virginia riflemen, led by Daniel Morgan, was proud to serve under Washington. Their uniform was suggested by Washington. They were all dressed in Indian costume with fringed hunting shirts. A regiment from Mar'blehead, Massachusetts, was camped beside the Virginians in the same field at Cambridge (kām'brīj), west of Boston.

There was little travel in those days. The Virginians looked very strange to the New Englanders. Their Indian dress seemed funny, and the Marblehead men poked fun at the Virginians. They replied with snowballs. A thousand men were soon fiercely snowballing. Some began to fight with their fists. Their officers tried in vain to stop the quarrel.

Washington was at his headquarters when Colonel Glover of the Marblehead regiment burst in and said: "My men are fighting in the pasture lot north of Harvard College. They are not fighting with the enemy, but with the Virginians."

"Pompey," said Washington to his colored servant, "gallop ahead and let down the bars for me."

Washington, the best horseman in America, sprang on his steed. He reached the bars just as Pompey



WASHINGTON SEPARATING THE FIGHTING MEN

was dismounting. Washington spurred his galloping horse, and the animal jumped over Pompey, the bars, and all, and landed among the astonished soldiers with the suddenness of a thunderbolt. The general jumped down into the thickest of the fight and seized two tall Virginia riflemen by the throat. Washington was very tall and very strong. The other soldiers saw him shake the pair as if they had been cornstalks, and took to their heels. The fight was over.

An eyewitness of this event said : "From the moment I saw Washington leap the bars at Cambridge and stop that fight among men wild with excitement, I knew

that we had the right man to lead the cause of American liberty.”

His Handicap

Washington did not say a word for half an hour when he heard that his army before Boston did not have powder enough to fight for half a day. He could keep still. People found fault with him because for eight months he did no fighting. He could not explain why, because the enemy would have learned. But he kept the British shut up in Boston. When he finally



THE RETREAT FROM LONG ISLAND

had cannon and ammunition, he seized Dor'chester Heights, south of Boston. The British could no longer hold the city, so they sailed away, first to Canada (March, 1776) and then to Long Island (map, p. 53).

The British found Washington and his army on the western end of Long Island and defeated them. The British had a larger force than Washington. Their fleet might have sailed into the East River and trapped him. He barely escaped by one of the most masterly retreats in history. In the night fishermen soldiers from Gloucester (glös'ter) and Marblehead, men who had been fighting with the Virginians in the winter, rowed Washington's army of 10,000 across the East River to New York. The New England fishermen were skilled in rowing and did what seemed to be impossible. Washington directed the movements and crossed in the last boat.

Dark Days — Then Victories

The Americans seemed to have lost their chance for independence in the next few months. Fort Washington, on the northern part of Manhattan Island by the Hudson River, was captured by the British with 3000 of the best American soldiers and a large amount of weapons and ammunition. Washington had crossed into New Jersey and was helpless to prevent the capture of the fort which bore his name. He had so

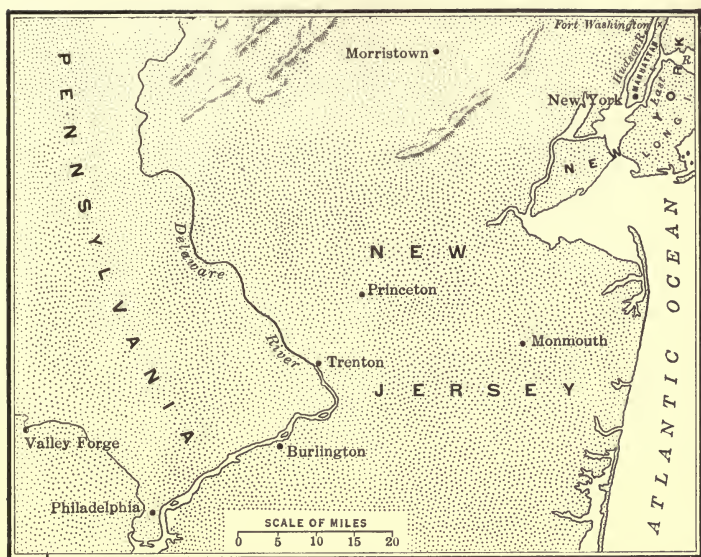
few men that he was forced to retreat, first across New Jersey and then across the Delaware River. The British thought the war was at an end. Some British leaders prepared to sail for England at once.

Washington determined to do something that would rouse the country and give it hope. He planned to cross the Delaware River through the floating ice on Christmas Day. He aimed to attack Trenton on Christmas night, and catch the British unaware. The Marblehead fishermen rowed his soldiers across. Then the little army marched nine miles in a blinding snow-storm, and captured 1000 of the soldiers whom Great Britain had hired in Germany to fight the colonists. Washington quickly recrossed the river with his prisoners.

A few days later Washington crossed the Delaware again and defeated a part of the British army at Princeton, New Jersey. Some of the British leaders changed their minds about going home to England. The cause of the Americans seemed hopeful again. Frederick the Great of Prussia, one of the world's greatest masters of the art of war, said that Washington showed surprising genius in this campaign.

A Victory that Caused France to Aid America

The summer after his victory at Trenton, Washington could not stop the British from taking Philadelphia.



NEW YORK, PHILADELPHIA, AND THE COUNTRY BETWEEN

This city was then the capital of the United States. Washington did keep a large number of British soldiers so busy at Philadelphia that they could not go north to help the British General Burgoyne (bur-goin'). He was marching from Canada toward New York to try to separate New England from the rest of the United States. American soldiers captured him and his large army at Sarato'ga.

This victory is one of the most important in American history. The defeat of Burgoyne showed the French that the Americans had a chance to win. France had

been aiding the Americans secretly. She now took their side openly and let them have money, soldiers, and ships to aid them in fighting Great Britain.

Valley Forge, One of Washington's Greatest Victories

The winter following Burgoyne's surrender was one of terrible suffering for the Americans. The British army spent the winter in Philadelphia, where the soldiers had good clothing and plenty to eat. Washington took his army of eleven thousand to Valley Forge, twenty miles northwest of Philadelphia.

The winter was very cold. Washington's soldiers did not have warm clothing. They lacked blankets and sometimes they had to sit up all night near a fire to keep from freezing to death. Their shoes were so worn that their feet often left stains of blood on the hard snow crust.

Sometimes the American soldiers did not taste meat for days. Word came to them that if they would desert and join the British army in Philadelphia, they could have all the beef and chicken they wanted to eat. But the example of Washington kindled the patriotism of the soldiers so that they remained true to their country in spite of hunger and cold. One of Washington's greatest victories was holding his army together at Valley Forge during that awful winter.

*Brown Bros.*

THE WASHINGTON MEMORIAL CHAPEL AT VALLEY FORGE

About 475 acres have been made into Valley Forge Park to commemorate the heroism of Washington's small army.

Washington at Yorktown

It was near the end of the winter at Valley Forge (February, 1778) that France agreed to help America. Franklin was in France securing as many men, arms, and ships as possible to help us. Even with this aid Washington found that he had a long, weary task on his hands. Everything seemed to work to prevent the French army, the American army, and the French fleet from getting together at the same time to attack the British.

Finally, Washington heard that the French fleet of twenty-nine vessels with 3000 men on board would sail from Cuba to the mouth of Ches'apeake Bay (map, p. 75). Washington joined forces with the French army then near New York. Together they hurried to Virginia. The British General Cornwallis was at Yorktown, Virginia, to get supplies from a British fleet. His army had been fighting the patriots in the South. Washington hoped to trap Cornwallis.

The French fleet kept the British ships from coming to help Cornwallis. The American and French armies under the command of Washington laid siege to Yorktown and forced Cornwallis to surrender (October, 1781). Washington had planned the battle well, and the French helped him to win. The victory at Yorktown was the last great battle of the Revolution.

When the treaty of peace with Great Britain was signed (1783), Washington gave up his position as commander in chief of the American army and went back to his farm at Mount Vernon, Virginia. He was the leader who made it possible for us to gain our independence.

What Kind of General Was Washington?

Washington served during the entire Revolution without pay. He wondered many times how he could get money to pay his soldiers and buy powder for them.

He always did the best that he could with the small force at his command. He often had to retreat to save his army from capture.

The winter at Valley Forge showed his patience. He took faultfinding patiently or he would have given up his command when he was unjustly blamed. If he had ceased to lead the army, there would have been no one else who could have filled his place.

Men trusted Washington because he could always be depended on to do his duty. He kept on fighting after the war seemed hopeless to others. He could not be drawn from the right path by offers of honors or of anything else that men want. No one who knew him would have dared to rouse his anger by offering him a bribe. His character was in itself an army for his country.

Washington's ancestors lived in Sulgrave Manor in central England. Both American and British flags now float over the old home of the Washingtons to honor the family from which such a hero sprang. America has done nothing greater than to give George Washington to the world.

How Washington Helped to Give Our Country Its Present Government

We must not think that Washington's service to our country ended with the Revolution. We should

remember him for two more great acts of service : (1) He helped to secure the adoption of the Constitution under which we are now governed. (2) He became the first President of the United States and showed future Presidents how to fill that office.

Let us take a look at the government of our country after 1776. We can then understand why our Constitution was a great gift. For thirteen years after the Declaration of Independence, the United States formed a loose union of states, called a Confederation. Each state in the Confederation wanted to be almost as independent of other states as it was of Great Britain. Some states would tax things brought in from other states, just as if the things had come from across the ocean. New York taxed the chickens and eggs from New Jersey and the firewood from Connecticut. Of course, such acts made New Jersey and Connecticut angry, and they tried to get even with New York.

Europe did not expect the United States to last long. Like other countries, we had sent only one minister to Great Britain ; but Great Britain thought that each one of the thirteen states should send a minister to her to represent it.

Making the Constitution

The Confederation had a Congress made up of representatives from each state. There was no Presi-

dent and no Supreme Court, such as we have to-day. No change could be made in the Confederation's rules of government unless all thirteen of the states agreed to it. At least one state voted against every change that was suggested.

The states saw that their union under the Confederation could not last. Congress called (1787) a meeting of delegates from the states to decide upon improved rules of government. This meeting is known as the Constitutional Convention. George Washington was chosen president of the Convention. The Convention held sessions in Philadelphia from May to September, 1787.

The Constitutional Convention framed our present Constitution. This was really a new set of rules for governing the United States. One of these rules gave Congress the power to raise money by taxes. Another laid down a new way for making changes in the Constitution and for adding to it. These changes or additions are called Amendments. The last change was made in 1920 and gave women the same right as men to vote.

The Constitution provided for a Congress, a President, and a Supreme Court. The new Congress was divided into the Senate and the House of Representatives. Congress makes laws for the whole country. It is the President's duty to see that the laws are

obeyed. The Supreme Court decides important questions about the exact meaning of the Constitution and of the laws passed by Congress.

Let us remember that George Washington's help was necessary (1) to get the members of the Constitutional Convention to agree on the new rules of government and (2) to make the people in the different states feel safe in voting to accept the Constitution.

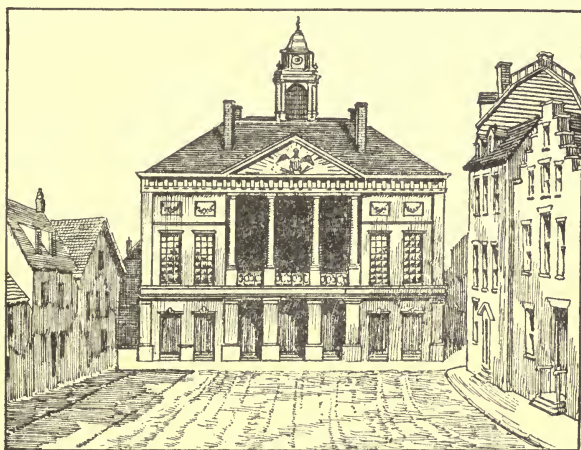
George Washington, First President of the United States

The states choose men called "electors" to vote for President. Every elector in 1789 voted for George Washington. At the end of his first term of four years, every elector voted for him for a second term. In the long line of our Presidents, Washington is the only one who did not have any vote against him.

The old Congress of the Confederation called for the new Congress of the Constitution to meet in New York, the capital of the new government, on March 4, 1789. This year has been called one of the five most important dates in the history of our country because the new government under the Constitution began in 1789. March 4 has continued to be the time for the inauguration of a President.

March 4, however, was not the time when Washington was inaugurated. The reason was that the country

then had very few good roads and no railroads. The roads in March were so muddy and travel so slow that Congress could not hold its first meeting in New York until April 6. On that day Congress sent formal notice to Washington that he had been elected President. It took the messenger eight days on horseback to reach Washington's home in Mount Vernon, Virginia.

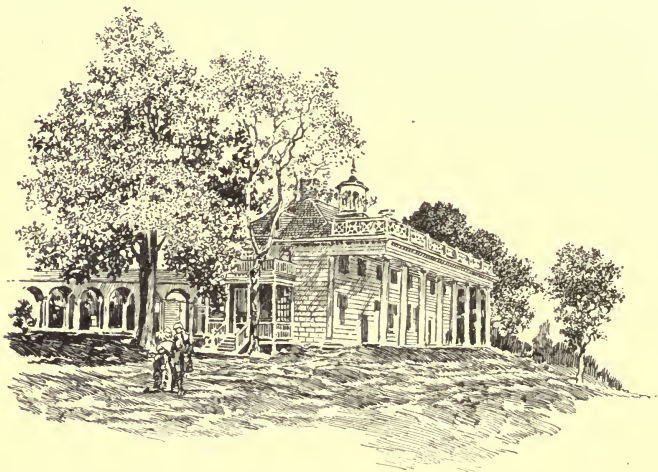


FEDERAL HALL, NEW YORK

Redrawn from an old print.

George Washington was inaugurated first President of the United States on April 30, 1789. He stood on the portico in front of the Senate chamber of Federal Hall in New York. It was a solemn moment when he took his oath of office by repeating these words from the Constitution :

“I do solemnly swear that I will faithfully execute the office of President of the United States, and will to the best of my ability preserve, protect, and defend the Constitution of the United States.”



MOUNT VERNON

George Washington's home.

Washington was President in two different capitals. New York was the capital until 1790, but Congress voted to make Philadelphia the capital for ten years. The District of Columbia was selected for the final site of the nation's capital. The city built there was named Washington in honor of the Father of his Country.

At the end of his second term (1797), Washington gladly went back to his farm at Mount Vernon. He died two years later. Thousands go every year to

visit his grave at Mount Vernon. More than any other one man, he helped make our country what it is to-day.

THINGS TO DO

Give the date of the holiday called Washington's birthday.

Washington loved trees. How many trees can you name from their leaves? How many from looking at their bark and shape in winter?

Explain why the governor of Virginia chose Washington to warn the French.

Tell why you think two steps taken by the second Continental Congress were important. Do you think they will seem less important in time to come?

Find on the map the Delaware River, also Trenton and Princeton in New Jersey. Then point out another place in New Jersey where Washington fought the British.

Imagine yourself a soldier with Washington at Valley Forge. You get an invitation from the British in Philadelphia to come there, eat chicken, and sleep by a warm fire. Some Americans tell you that they are going. How would you have decided? Give your reasons.

Tell how the United States was governed from 1776 to 1789. What change was then made?

Write three or four sentences telling what two great services Washington did for his country after the Revolution.

Washington had character. Tell what that means.

SOME BOOKS THAT WILL HELP YOU

Smith, B. W., *Boyhoods of Our Presidents*, 15-23.

Baldwin, J., *Four Great Americans*, 9-65.

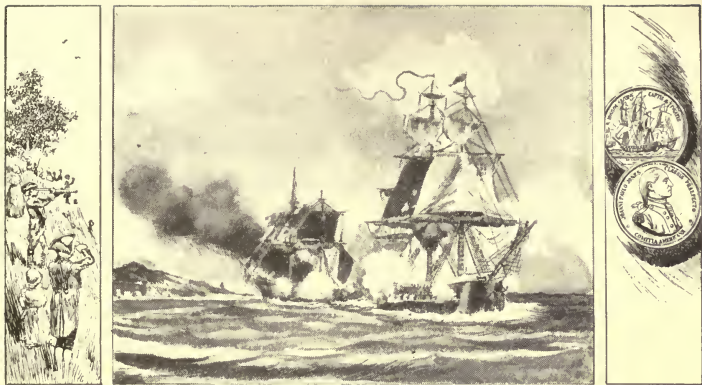
McSpadden, J. W., *Story of George Washington*.

Blaisdell and Ball, *Hero Stories from American History*, Chapter X (Washington and some other makers of the Constitution).

Hart, *Camps and Firesides of the Revolution*.

Olcott, F. J., *Good Stories for Great Birthdays*, 191-234 (George Washington, February 22).

REFERENCES FOR TEACHERS. — Morgan, J., *Our Presidents* (Washington, 1-16); Scudder, H. E., *George Washington*; Wrong, G. M., *Washington and his Comrades in Arms* (*Chronicles of America*); Ford, H. J., *Washington and his Colleagues* (*Chronicles of America*); Sparks, E. E., *Men Who Made the Nation* (George Washington, The First President, 181-216); Tappan, E. M., *Story of Our Constitution*.



THE BATTLE BETWEEN THE *DRAKE* AND THE *RANGER*

CHAPTER V

WASHINGTON'S HELPERS

Nathan Hale

WE are now to meet some of the worthy men who helped George Washington win our independence. Nathan Hale is one of these. He was nearly six feet tall, well formed, and an athlete. He won the broad jump at Yale College, where he was a student. He was a fine swimmer. Every one in his class liked him. After he graduated, he became a school teacher.

Not long after the beginning of the Revolution, he gave up his school and joined Washington's army at Boston. He soon became the captain of a company. He went with Washington to Long Island. His strong arms may have helped row the boats across the East River in the famous retreat.

Washington asked Hale to find out the numbers in the British army and the plans of its general. Hale went among the British soldiers and learned everything he could. There is a story that an American who sided with the British recognized the young athlete when he kicked a football over a tall tree. At any rate, somebody who knew Hale reported that he was a spy.



HALE'S STATUE IN NEW YORK, N. Y.

Hale was arrested and searched. Some notes for Washington were found on him. He was sentenced to death. As he stood on the gallows, he was asked if he had anything to say. Then Nathan Hale, only twenty-one, uttered one of the most patriotic sentences ever spoken: "I only regret that I have but one life to lose for my country."

Visitors to City Hall Park, New York, may see a statue of the handsome young athlete and patriot. Another statue of him stands on the Yale University campus at New Haven.

Lafayette

A French boy, later known in America simply as Lafayette (lä-fā-yět'), was born in a mansion in France — the son of the Marquis de La Fayette. The peasants bowed to the boy as if he were a king. He early dreamed of doing something great. One cold winter a wolf came from the forest and devoured the peasants' sheep. Lafayette, then eight years old, determined to play the hero. So he went into the forest and searched for the wolf. That hungry animal would doubtless have been very glad to find the boy, but neither saw the other. This desire to do great things never left Lafayette.

When he was nineteen, Lafayette bought a ship which brought him over the ocean to help the Americans gain their independence. The Congress of the United States made him a major general in Washington's army. While fighting bravely to keep the British from reaching Philadelphia, he was wounded in the leg. With the blood running from his boot, he rallied his soldiers and held a bridge until Washington came. He became the young hero of the American army

He went to Valley Forge with Washington and endured the cold. When Lafayette revisited America long after, an old soldier asked him: "Do you remember a snowy night at Valley Forge when you found me shivering in a sentry box? You took my musket and stood guard while you sent me to your quarters to get warm clothing. You cut your only blanket in two pieces and put half of it on me."

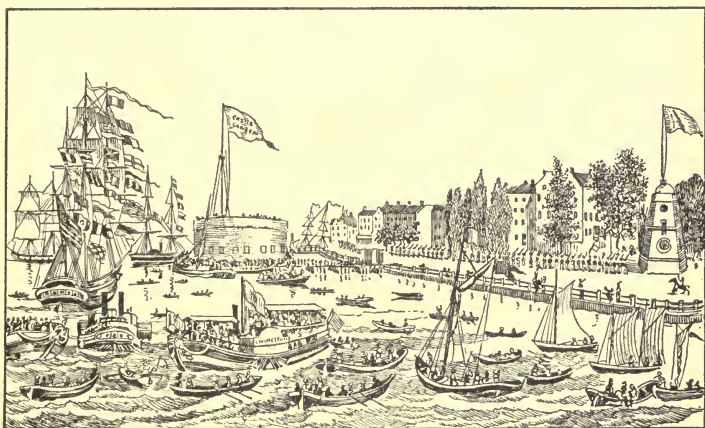
The British left Philadelphia when they heard the French would help the Americans. The British feared the French fleet would sail up the Delaware River and trap them. While the British were marching across New Jersey to reach New York, Washington planned to attack them at Monmouth (mon'muth). Lafayette was in command at the front, but Charles Lee, an American general of higher rank, came on the field suddenly, took command, and ordered a retreat. Washington hurried up, and ordered Lee away. Lafayette helped Washington rally the Americans.

Washington gave Lafayette a small army to watch the British in Virginia. Lafayette said to the merchants in Baltimore: "I need \$10,000 worth of shoes and clothing for my men. If you will trust me, I will pay the bill if your government does not." They gave him the clothing. He led his army in Virginia well and helped Washington take Yorktown.

Almost fifty years after the outbreak of the Revo-

lution, Lafayette accepted the invitation of the United States to come and be its guest. His visit showed him that the people of the United States thought that his young dreams had come true and that he had done something great.

Schools, stores, and factories closed wherever he went. He saw the words "Welcome, Lafayette" on



WELCOMING LAFAYETTE IN NEW YORK BAY, 1824

Redrawn from an old print.

thousands of buildings. One baby was named "Welcome Lafayette" and kept the name for life. Miles of babies, whose first name was Lafayette, were held up for him to see.

A revolution in France had swept away his fortune. Our Congress gladly made him a present of \$200,000.



THE STATUE OF LAFAYETTE IN PARIS

Although Lafayette died and was buried in France, he lies in American soil. He carried home with him from an American battlefield enough soil for his grave. Visitors to Paris may see the statue of Lafayette given to France by five million American school children.

Baron Steuben

Baron Steuben (stū'ben) was a German officer who came to help the Americans. He had fought under some of the greatest generals in Europe. Like Lafayette, he went to Valley Forge. Steuben became the drillmaster of the Revolution. He took the untrained soldiers at Valley Forge and drilled them so that they could march and fight as skillfully as the best-trained soldiers in Europe.

In the spring mornings he rose at three o'clock and began his drill at sunrise. He had the German idea of obedience. On his way to Valley Forge he and his party stopped at an inn on a snowy night. Steuben knew that the keeper of the inn was a Tory, that is, a man who wanted the king of Great Britain to keep control of the colonies. The keeper told Steuben that he had no beds, no eggs, no meat, no drink. Steuben drew his pistol and said: "If you have nothing, you are better dead." The frightened landlord then gave the party beds and food and took care of their horses.

The Americans at first had little use for a bayonet except for broiling their meat over the coals. Steuben taught them how to use the bayonet so that they later captured a fort at the point of the bayonet with their muskets unloaded.

At the battle of Monmouth, he brought a company

of retreating soldiers to a halt in the midst of a heavy cannonade. They reformed in regular lines as if they had been on the parade ground. Then they helped to stop the advance of the British.

Washington sent Steuben to Virginia to collect and drill a southern army. Washington had him appointed inspector-general of the American forces. The good results of Steuben's work were seen wherever he went.

Steuben chose to live in the United States after the war. Congress gave him a pension of \$2400. Several states gave him tracts of land. He was generous and kindly and gave away much of his land to those who had served with him in the army.

The county where he lived in New York is called Steuben County. An Ohio city is named Steubenville.

Nathanael Greene

Nathan'ael Greene (1742-1786) was born in Rhode Island. His father had a farm, a flour mill, and a forge, or blacksmith shop. The son said to himself when he was a young boy: "Nat, you must have an education or you won't amount to anything." He made toy anchors in the blacksmith shop and sold them for money with which to buy books. He went to a bookstore and said: "I want a book."

"What book?" snapped the bookseller.

A preacher in the bookstore suggested an English-

man's work on government. The boy bought the book and read: "The people need not obey a king who does not rule for their good." He remembered this when George III taxed Rhode Island without its consent.



NATHANAEL GREENE
From a miniature by Malbone.

Greene continued to buy books on any subject that he wished to know. When the family had a lawsuit, he bought a book on law. He studied books on the art of war when he thought the colonists would fight Great Britain. He could act on what he read. He went to Boston, bought a musket, and watched the drill of British soldiers. He brought back a deserting British soldier to drill men in Rhode Island.

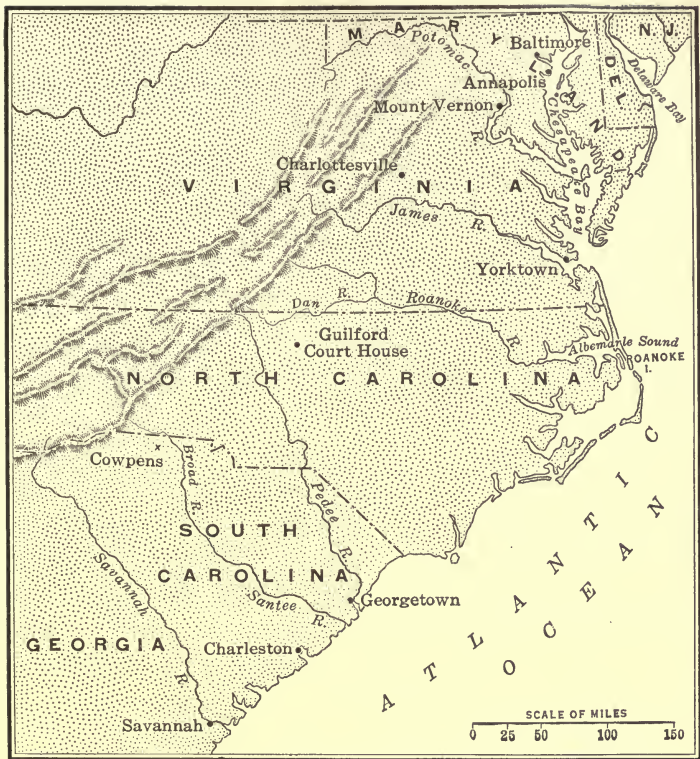
Greene became commander of a company of Rhode Island soldiers. He helped Washington in the victory at Trenton. He became the second most useful general in the Revolution, ranking next to Washington. Greene greatly admired Washington and strove to be like him. He became the general on whom Washington most relied.

Greene and Morgan

After the Americans had been badly defeated in the South, Washington sent Greene there to command the American army. He was aided by General Daniel Morgan (1736-1802). Morgan had been a teamster in Braddock's army and helped to take the wounded away after the battle. We remember that he had commanded a company of Virginians under Washington (p. 48). He had also aided in capturing Burgoyne.

Morgan soon fought the battle of Cowpens, so-called because it was a cattle pasture. Cowpens is in northwestern South Carolina, near the Broad River. Morgan placed his rear line on this stream so that his untrained soldiers, called " militia," could not run away. There were about one thousand soldiers in each army. Morgan planned the battle so well that he captured more than half of the British army. He then became sick and Greene took command.

Greene fought hard in the South for nearly a year without winning a battle. He showed great skill but



THE SOUTH IN THE REVOLUTION

he had to fight larger and better-trained armies under the British General Cornwallis.

Greene's greatest battle was fought (1781) against Cornwallis at Guilford (gil'fērd) Court House, in northern North Carolina. The loss was heavy on both sides. Greene held his ground until nightfall,

when he retreated. He would never risk the loss of his entire army, because he could not get another.

His defeat at Guilford Court House was equal to a victory, because the British lost nearly one third of their army. Cornwallis needed men and supplies, and he began a march to the sea to get them. It was largely because of this battle that Cornwallis went to Yorktown, where he was captured in the fall of the same year. Greene thus helped to end the Revolutionary War. He helped also by winning victories over the British forces left in the far South, and regaining much territory there for the patriot cause.

After the war Georgia gave Greene a plantation to show her appreciation for his defense of the South. He lived on this plantation for the rest of his short life. Sunstroke caused his death at the age of forty-four.

Francis Marion

Francis Marion was born near Georgetown, South Carolina. He was brought up to work on his father's farm. Ships came to the seaport of Georgetown from far-off lands. When he was sixteen he wanted to sail away in them and find out how wonderful the world is. He started for the West Indies in a small vessel manned by six sailors. A whale wrecked the vessel on the ocean, and it sank so quickly that the crew had scarcely time to jump into the small boat, with-

out food or water. Two men died while they were drifting about for a week. Finally a ship picked up Marion and the rest of the crew. He had had enough of the sea.

Marion's next adventure came from fighting Indians. He attacked an Indian stronghold with thirty men and captured it after losing all but nine of his men.

He raised a force, known as "Marion's Brigade," to fight the British. This brigade was small, seldom having more than sixty men. Marion lived in the greenwood with his men, like Robin Hood. His camp was in eastern South Carolina on an island covered with trees and surrounded by a marsh. Rabbits, deer, wild turkeys, ducks, and geese visited it. The British could not find the hidden swamp paths that led to it.

The British called Marion the "Swamp Fox" and said that it was impossible to catch him. Marion was as quick as a panther in his attack on the enemy and as fleet as a deer in his retreat. He usually attacked a far larger force. For instance, he surprised a part of the British army marching as a guard for one hundred fifty captured American soldiers. He defeated the British, set the Americans free, and fled before other British forces could catch him. A British general said that Marion seemed always busy with one or more of five aims: (1) to cut off supplies going to the British army, (2) to scare Tories and keep them



MARION'S MEN IN A FOREST HIDING PLACE

from enlisting, (3) to catch British officers who went around trying to get Americans to fight for Great Britain, (4) to capture messengers going from one part of the British army to another, and (5) to attack the rear of a British army on the march, kill a few or take them prisoners, and then flee.

Sometimes Marion's men had to scatter into the forest and meet like Robin Hood's men at a known place. Sometimes Marion had no army, because his soldiers had to plant their crops and care for them to

support themselves and their families. But they were always on the watch to help their country. One of his men saw seven British soldiers asleep in a pine forest. Their muskets were piled against the trunk of a tree. He crept up, holding his breath, and carried them all away. Then two other of Marion's men came with him and took the seven prisoners.

Marion's greatest glory was in keeping the fires of patriotism burning in South Carolina through the darkest days of the war when the British marched over the state wherever they chose. There were other leaders who aided in the same way as Marion, but he was the most famous of his kind.

John Paul Jones

John Paul Jones, the son of a Scotch gardener, was born in southwestern Scotland. At the age of twelve he became a sailor apprentice on a ship going to America, and he prepared himself so thoroughly that he was ready for his chance when it came. When he was twenty-one, the captain and the mate of his ship died while crossing the Atlantic. Jones at once took command and brought the ship safely to England. He was then made a regular captain.

In the first year of the Revolution, Jones became an officer in the American navy. He hoisted the first flag on an American man-of-war (January, 1776).

This was not the flag used to-day, but a banner of yellow silk. It had the figure of a rattlesnake coiled at the foot of a pine tree, and underneath it the words "Don't tread on me." In his little vessel the *Providence* he captured in seven weeks eight British ships with valuable cargoes. He also took twelve fishing vessels. One who tells the story of his life says: "With a kindness that may seem beyond belief to-day, he left two of the fishing vessels to the three hundred fishermen that he had captured, in order that they might not be without means of reaching England."

Jones was sent to Europe in the war vessel *Ranger*. The British had attacked American seaports. Jones wanted to give the British a dose of their own medicine. He went into a port on the western coast of England and burned a vessel there. He then determined to kidnap an English nobleman and to exchange him for American prisoners. The nobleman would have been taken if he had been at home; but as he was away, the sailors took the family silver as a prize. When it was sold for the sailors by the prize court, Jones bought the silver at a high price and returned it to the owner. Even the tea leaves in the teapot were sent back.

We ought to remember the two greatest victories of this hero. The first was his fight with the British battleship *Drake*, just after the silver had been taken. The two vessels were so near the coast that thousands

watched the battle as if it were a football game. The two vessels were of about equal strength, but Jones handled his ship so well that the British vessel surrendered in sixty-four minutes (1778).

The king of France gave Paul Jones a ship which he renamed *Bon Homme Richard* (bō-nōm rē-shär') in honor of Benjamin Franklin. The name was suggested by Franklin's *Poor Richard's Almanac*. On September 23, 1779, Jones sighted the new British battleship *Sera'pis* off the east coast of England. The *Richard* was an old merchant vessel, made over into a warship. The *Serapis* not only was new but she had twice as powerful a battery of guns.

The fight that followed is one of the most famous in our naval history. Two of the cannons on the *Richard* exploded at once, killing a large number of men and tearing a hole in the hull of the ship. The cannons on the main deck of the *Richard* were soon silenced by the superior fire of the *Serapis*. The shots from her passed through the *Richard* and fell in the sea on the other side.

Jones saw that his only hope was in boarding the *Serapis*. By every rule of the game of naval war, he was beaten. He sailed the *Richard* so skillfully that the two ships became entangled and Jones lashed them together. The *Serapis* fired so fast at such close quarters that she riddled the *Richard* like a sieve.

"Have you surrendered?" asked the captain of the *Serapis*.

"I have not yet begun to fight," Jones replied.

While he had the pumps manned to keep the *Richard* afloat, his sailors on the platforms at the tops of the masts shot the men on the deck of the *Serapis*. A sailor with a hand bomb crossed from the *Richard* to



BATTLE BETWEEN THE *BON HOMME RICHARD* AND THE *SERAPIS*

The Americans boarded the enemy ship and captured it in a hand-to-hand fight.

a yard arm of the *Serapis*. He threw the bomb down the hatchway of the enemy. It struck a pile of ammunition, which exploded and killed a large number. After three hours and a half of terrible fighting the *Serapis* surrendered.

Jones had to transfer all his men from the *Richard* to the *Serapis*. Soon after, the *Richard* plunged beneath the waves. He took the *Serapis* to Holland and turned her over to France, the ally of America.

Jones later distinguished himself in other ways, but this was the crowning battle of his life. He died (1792) in Paris. One hundred thirteen years later, his body was brought (1905) by a fleet of American warships to Annapolis, Maryland, where it now rests in the chapel of our Naval Academy.

George Rogers Clark

In the same winter that Washington and his army were suffering at Valley Forge, a young man by the name of George Rogers Clark called on Patrick Henry, then governor of Virginia. "I want," said the young man, "a small army to invade the Northwest. You know that Great Britain now holds the land west of Pennsylvania and New York to the Mississippi River. Indians are coming from north of the Ohio River to destroy our Kentucky settlements. We should stop these attacks at their source."



KENTUCKY AND THE NORTHWEST TERRITORY

The Wilderness Road (p. 107) is marked by the heavy line in and near Kentucky.

Let us set ourselves four problems. The answers to them are necessary, if we wish to understand one of the great events in our history.

1. What kind of young man was Clark?
2. Why did he make such a request of Patrick Henry?

3. What did Patrick Henry do for Clark?
4. What did Clark do for his country?

1. What Kind of Young Man Was Clark?

George Rogers Clark (1752-1818) was born on a farm in Virginia, but had gone to Kentucky to live. He was the kind of youth that a modern football coach would pick for the captain of his team. He was tall, strong, and very much alive. His face showed sense, and he had a determined chin. In football plays he would have known where he was going and how best to get there.

Clark had unusual power of imagination. He could see things when they were not present to his eye. Many fail because they see only the things under their feet. He could see the towns and trading posts founded by the French in the Northwest Territory — the land between the Ohio River, the Mississippi, and the Great Lakes — although he had never been there. The British had taken this territory in the French and Indian War; but many of the French were still living in the towns. Clark wondered whether they liked their conquerors so well that they would not take the side of the Americans.

Clark could imagine what was taking place in those towns. He saw the Indians bringing beaver furs to the British traders and getting gunpowder, shot, and

blankets in return. In imagination he heard the British telling the Indians that the American settlers in Kentucky would shoot all the game there and then cross the Ohio River and destroy their hunting grounds. He could see the Indians getting ready to fight on the British side. He could imagine them coming to Kentucky to kill the American settlers there.

2. Why did Clark Ask Patrick Henry for Soldiers?

Clark's imagination showed him that to save Kentucky he must go to the Northwest Territory and try to get the French and the Indians on the side of the colonists. He saw that the British might even send Indians across the mountains to attack the American patriots in the rear, if something were not done.

Virginia's grant from the king of England gave her a claim to the Northwest Territory. Kentucky was one of the counties of Virginia. Clark went to Governor Henry for soldiers, and not to Congress, because he said Virginia should try to save her own territory.

The reason why Clark wanted soldiers was to invade the Northwest Territory and drive the British out. Neither Clark nor Henry made this reason public.

3. What did Patrick Henry Do for Clark?

Washington's army was starving and freezing at Valley Forge when Clark asked for soldiers, powder, bullets,

muskets, and money to pay soldiers. It was perhaps the worst time to ask for them. Virginia had already sent men and money to Washington. She needed many men to protect her own settlements from Indians.

Governor Patrick Henry had imagination, and he liked Clark's plan. Henry knew that if Clark's real purpose were known, the expedition would fail, and so it was said that he was going to defend Kentucky. So he was, but the imagination of both men saw that Kentucky's line of defense must be placed farther north. Clark knew he was expected to take three towns that helped Great Britain hold the Northwest.

Patrick Henry gave Clark for this expedition a smaller amount of money than some football teams now use for their expenses in one season. Clark was told that he must raise his own army. He expected to have three hundred fifty soldiers; but he really got about half that number. He knew the British might bring against him armies many times larger.

4. What did Clark Do for His Country?

Like a football captain, Clark gave careful orders to his men some time after he had taken them down the Ohio River from Pittsburgh to Louisville. He said:

"Row down the Ohio River from Louisville, nine miles below where the Tennessee River flows into the Ohio. Leave your boats and march northwest for

six days to Kaskas'kia, a town about one hundred twenty miles distant."

Clark left Louisville (June, 1778) with about one hundred eighty men. The men followed his orders exactly and entered Kaskaskia on the night of July 4. They surprised the British garrison and captured the town, containing about eight hundred inhabitants, many of them French.

Clark's men had no horses with them. They went without food for the last two days of the march. Clark was then only twenty-six years old.

Clark was the first to tell the French that France and the United States were now allies, waging war to defeat Great Britain. The French became his warm friends. He also made friends of the Indians.



GENERAL CLARK SIGNING A TREATY WITH THE INDIANS

From a mural painting in the Seelbach Hotel, Louisville, Ky.

Caho'kia was another French town, of about four hundred inhabitants, under British control. It was

sixty miles north of Kaskaskia on the Mississippi River, a little below St. Louis. The French begged Clark to let them help capture the town. They aided, and Cahokia was taken without bloodshed.

The town of Vincennes (vĭn-sĕnz') was the goal that Clark needed to reach. This town was on the Wabash (wô'băsh) River in Indiana. Vincennes was an important British post from which to start an attack on Kentucky. The way by which Clark and his men went to Vincennes was two hundred forty miles. They started from Kaskaskia (February 5, 1779) when the rain was heavy and the rivers had overflowed. Clark chose February because he thought the British would not expect an attack at that time. The British commander at Detroit felt sure that only fish could then reach Vincennes from Kaskaskia.

Clark had a force of one hundred thirty-one men, nearly half of them his new French friends. It rained during most of the early part of the journey. On the eighth day they had to wade five miles where two streams had joined. The icy water was from three to four feet deep.

Clark wrote that the suffering of his men on the last four days of the march was beyond belief. For the last four miles before reaching Vincennes, they were often up to their armpits in water, which had a skimming of ice over it. Of the eighteenth day one of

Clark's officers wrote: "Set off to cross a plain about four miles long, covered with water breast high."

Clark worked hard to keep up the spirits of his men while they were crossing this flood of water. Even he felt his strength failing, but he then had the word passed along that the water was growing shallower.



CLARK AND HIS MEN ON THE MARCH TO VINCENNES

This news cheered the men and made them double their efforts. When they reached a forest where Clark expected shallow water, he found it up to his shoulders. The short and weakly men then had to cling to trees

and floating logs until canoes were brought to rescue them. Even the men who were chilled to the bone saw one sight that made them smile. This was the little drummer boy floating along on his drum.

When Clark reached some small hills before Vincennes, he had his men march and countermarch around them to make the enemy believe that he had a large army. The British garrison soon surrendered (February 24, 1779).

What did Clark do for his country? He won the Northwest Territory for the United States. Think how important a part of our country this is. Five states — Ohio, Indiana, Illinois, Michigan, and Wisconsin — have been formed from the Northwest Territory.

Had it not been for Clark, the Northwest Territory might have remained in the possession of Great Britain at the end of the Revolution, and it might be a part of Canada to-day.

Alexander Hamilton

Alexander Hamilton ranks among Washington's greatest helpers. Hamilton was born in the West Indies, on the island of Ne'vis. This island, which belongs to Great Britain, is only three miles wide and four miles long, but it was large enough for his playground during the time that he was a child. His father was a Scotchman and his mother was French.

She died when he was eleven. His childhood then ended, for during the next four years he was clerk in a store on Santa Cruz, another island not far from Nevis.

When twelve, he wrote to a boy: "Ned, my ambition is prevalent, so that I condemn the groveling condition of a clerk to which my fortune condemns me." There are three words in this sentence which few twelve-year-old boys would use to-day. Like Franklin, he began to study words early and to use them in his own writing. Like Franklin, Hamilton became known through his writing.

When Hamilton was fifteen, a tempest swept Santa Cruz and other islands of the West Indies. Hamilton wrote a description of it, which was published without any name. The article was written so well that people did not rest until they knew who the author was. His friends declared that he deserved a college education, and raised the money for it. He soon entered King's College (now Columbia University), in New York.

While a student there, he attended a patriotic meeting in the fields to discuss sending delegates to the first Continental Congress (pp. 24-25). The remarks of the speakers were mostly noise and fell flat. Hamilton, then only seventeen, rose and thrilled the audience. He said: "You must resist Great Britain. The rights of mankind are written as with a sunbeam, in the whole

volume of human nature, by the hand of Divinity itself."

Dr. Cooper, president of King's College, was in favor of England. Hamilton spoke against him. But Hamilton believed in fair play. He made a long speech from the college steps to hold back a crowd that had



HAMILTON ADDRESSING THE CROWD FROM THE COLLEGE STEPS

come to tar and feather Dr. Cooper. Hamilton wanted to give his teacher time to escape to a British man-of-war. Dr. Cooper thought Hamilton must be abusing him, so he called from an upper window: "Pay no attention to him; he's crazy." Then Cooper escaped while Hamilton talked.

Hamilton soon joined a volunteer body of soldiers, called "Hearts of Oak." He helped protect the rear of Washington's army in its retreat from Long Island. He loved his cannons and patted them as he did the neck of his horse. He quickly learned to fire to hit the mark. At a battle in New Jersey, he planted a cannon on the campus of Princeton College and fired a shot that went through the head of a portrait of King George II of England, hanging in a college building. In a few months he won nearly as much praise for his skill in war as he had received for his speeches.

When Hamilton was twenty, he became Washington's aid with the title of Lieutenant Colonel. Washington also made him his secretary. Washington admired his ability and became his firm friend. Hamilton fought in the battle of Yorktown and won Washington's high praise by taking part of the British works.

Hamilton helped to make the Constitution of the United States (p. 59). When Washington became President, he chose Hamilton to be his Secretary of the Treasury, to look after the credit, debts, and money affairs of the nation. Hamilton saw to paying the debts of the nation and of the states. He gave good advice about the taxes that Congress should lay. He was the greatest Secretary of the Treasury that the United States has ever had. He ranks among our greatest statesmen.

THINGS TO DO

Learn Nathan Hale's patriotic reply.

Suppose you had been one of those asked to collect pennies to help pay for the Lafayette Monument given to Paris by American school children. Make a speech telling your classmates why they should contribute.

Tell how Baron Steuben helped the Americans.

Find on the map Cowpens, Guilford Court House, and Yorktown.

Prove this statement: Greene's fighting at Guilford Court House helped to send Cornwallis to Yorktown.

In two minutes tell when and why the body of John Paul Jones was buried in our Naval Academy.

Write on the board: "Act I—This is the office of Governor Patrick Henry of Virginia." A pupil playing the part of George Rogers Clark enters and tells the governor why he wants soldiers and supplies. He points out on a map the route of his intended march. The governor asks some questions.

Write on the board: "Act II—A few months later. This is the home of Clark's drummer boy." The boy tells his family about the march to Vincennes. The boy's mother, father, and friends ask questions.

Point out on the map the states formed from the Northwest Territory.

Explain how Hamilton was one of Washington's helpers.

Make two lists of these nine helpers of Washington, arranging them (1) in the order in which you think they were of most service to their country, (2) in the order in which you like them personally. After talking about these

nine men in class, elect two of them to be honorary members of your class.

SOME BOOKS THAT WILL HELP YOU

Root, J. C., *Nathan Hale*.

Brooks, E. S., *True Story of Lafayette*.

Coe, F. E., *Makers of the Nation*, 120-130 (Lafayette); 78-84, 95-103 (Greene and Morgan); 158-171 (Clark).

Olcott, F. J., *Good Stories for Great Birthdays*, 411-424 (Lafayette, September 6); 358-369 (John Paul Jones, July 6).

Tooker, L. F., *John Paul Jones*.

Beebe, M. B., *Four American Naval Heroes*, 17-68.

Foote and Skinner, *Makers and Defenders of America*, 94-97 (Hale); 86-93 (Greene); 98-104 (Jones).

Evans, L. B., *America First*, 184-188 (Marion).

Johnston, C. H. L., *Famous Cavalry Leaders*, 197-219 (Marion).

Perry and Beebe, *Four American Pioneers*, 72-132 (Clark).

Evans, L. B., *Trail Blazers* (George Rogers Clark).

Lefferts, W., *Our Country's Leaders*, 88-99 (Hamilton).

Nicolay, H., *Boys' Life of Hamilton*.

REFERENCES FOR TEACHERS. — Frost, J., *Swamp Fox* (Marion), fiction, contains matter to tell children; Channing, E., *A History of the United States*, Vol. III, *The American Revolution*; Wrong, G. M., *Washington and His Comrades in Arms*; Bodley, T., *George Rogers Clark*; James, J. A., *The Life of George Rogers Clark*; Ford, H. J., *Alexander Hamilton*.



DANIEL BOONE EXPLORING KENTUCKY

CHAPTER VI

DANIEL BOONE (1735-1820)

WE have seen how George Rogers Clark won the Northwest. It was necessary for the American colonists to settle and hold Kentucky before they could take and keep the Northwest. Our problem in this chapter is to find how Daniel Boone helped to settle Kentucky and to defend it from the Indians and from the British at the time of the Revolution. It was from Kentucky, you remember, that Clark set out on his expedition that took and held the Northwest.

How Boone was Trained

Daniel Boone was born in eastern Pennsylvania. He was brought up in a frontier settlement on the border of the Indian country. He probably never saw the

inside of a school, but he was taught to read and write at home. He was, moreover, well educated for hunting, exploring, and living near hostile Indians.

Boone had what would be called to-day "vocational" education. This means that he learned to do well what was necessary for the life he led. Children who



A HOME ON THE FRONTIER

lived on the frontier near Indians and who needed wild game for food had careful training.

Children were taught to know the different notes of the blue jay, the call of the wild turkey, the drumming of the partridge, the chatter of the squirrel, the barking of the wolf, the sound made by passing deer, and the alarm call of crows and of other birds. They could tell the differences between the footprints of the wolf, dog,

deer, rabbit, fox, mink, and lynx, and between those of the wild turkey, domestic fowl, crow, pigeon, and partridge. Children learned to find the hollow trees where bees stored their honey and to read the language of the moss on trees, telling them the directions, when neither sun nor stars could be seen. They were taught what they should do in the middle of a forest when darkness suddenly came or when they heard a strange animal sniffing behind them.

Boone learned all these things, just as boy scouts and girl scouts now learn some of them. Many of these scouts to-day can tell the source of more than twenty different sounds in the spring forest. Young Boone probably came to know more than twice that number, because both his food and his life depended on his knowing the forest sounds. He had six brothers who could hunt, but the Boone family found that Daniel brought the most meat to the table with a given amount of powder and shot.

The tools most used on the frontier were three, — the ax, the rifle, and the jackknife. Young Boone learned how to use them all. He was given a rifle at the age of twelve. Boys were then taught to shoot for the same reason that they learn arithmetic to-day — to help them make a living. The art of shooting furnished the frontier table with much or all of its meat. A boy might be whipped if he shot a squirrel

anywhere except in the head. Near his Pennsylvania home young Boone found and hunted rabbits, squirrels, quail, partridges, wild turkeys, bears, and deer.

The Boones Move to North Carolina

When Daniel was fifteen, all the Boone family moved from Pennsylvania to western North Carolina. He found here plenty of many kinds of game, from deer and buffaloes to wild turkeys. He joined the British General Braddock's army to drive a supply team when he was nineteen. In Braddock's battle with the French and Indians (p. 46), soldiers came rushing back yelling: "Indians!" Boone cut the harness, jumped on the back of a horse, and galloped away. He returned to North Carolina, married, and built himself a log cabin. He did some farming, but he liked to hunt and get furs better than to hoe corn.

Boone Goes to Kentucky

Boone met in Braddock's army John Finley, who had hunted in Kentucky. This was before any white people had settled there. Finley told Boone such wonderful stories about the game there that he started over the mountains with Finley toward Kentucky, May 1, 1769. With them went four other men. They wore deerskin hunting shirts and leggings, which took the place of trousers. The collar of the hunting shirt

and seams of the leggings had fringes for ornament. The men wore deerskin moccasins in place of shoes.



FRONTIERSMEN

The moccasins were noiseless, but a joker said they had the disadvantage of wetting through two days before it rained. We should remember the wide use of deerskin for clothing. Boone hoped to send back enough deerskin and furs to pay for the expenses of the journey and support his family.

The party went through Cumberland Gap. One month and seven days after leaving their homes in western North Carolina, they crossed the last mountain and looked down on the headwaters of the Kentucky

River. The time used in reaching Kentucky, because of the hard way over the mountains, shows us one reason why Kentucky had not been settled before.

Boone was amazed at the game. He thought that the wild turkeys which he first saw were a flock in one end of a forest, but he found that the flock covered the whole forest. Deer were seen in all directions. Many bears added to the interest of the hunters. What surprised them most were the buffaloes. Once the party would have been run over and killed by a herd of buffaloes if Finley had not shot the leader of the herd when it was almost upon them. The men were protected by the body of the animal, which caused the herd to divide and pass on both sides of them.



BOONE AND HIS PARTY FACING THE HERD OF BUFFALOES

Hunting for a Living

After a while the men separated in pairs and continued hunting. The man with Boone was his brother-in-law, named Stewart. The two stored in their camp a large stock of furs to be taken to North Carolina. Three days before Christmas, they were surprised and captured by Indians, who marched away with them for six days. After midnight of the seventh day, Boone touched Stewart and raised himself by inches on one elbow amid the sleeping Indians. Each took a gun and escaped in the darkness.

When they reached their camp, they found that Indians had stolen all their furs. Their other four companions could not be found, and they were never again heard from. Boone and Stewart, with the grit of bulldogs, determined to stay and get more skins. As they had not much powder left, they now began to trap for beavers, otters, and other furry animals.

One of Boone's brothers, named Squire Boone, and another hunter came to search for them. They found Daniel and Stewart in January (1770) and gave them powder and shot. The four continued hunting and trapping until one night Stewart did not return. Five years later Daniel Boone found in a hollow tree Stewart's skeleton and powderhorn marked with his name. He had probably been wounded and crawled in there

away from the Indians. The hunter who came with Squire Boone also disappeared.

Squire Boone went back to North Carolina (May 1, 1770) with a horse loaded with skins. A horse could carry one hundred dry deerskins, each worth about as much as two or three dollars would buy to-day. Beaver skins were then worth as much as five or ten dollars in the money of to-day.

The North Carolina fur market was nearly five hundred miles away. Squire Boone made three round trips there with a pack horse loaded with skins and furs. The next time Squire brought two pack horses.

Exploration and Adventures with Indians

Daniel Boone was left alone while his brother was gone. During that time he hunted and explored much of eastern Kentucky. One day he stood on the edge of a sixty-foot precipice, enjoying a beautiful scene, when Indians came from three sides. He saw that he could escape only by jumping into the top of a maple tree, thirty feet below. He sprang, caught in the tree like a squirrel, slid down, and ran away.

Boone could think quickly, and he knew how to deal with Indians. At a later time, Boone and a few hunters were eating their lunch when a large number of Indians appeared before them, sat down, and began to eat their lunch. They enjoyed looking at the white

men, who were trapped, knowing that either fighting or running away would mean sure death. Boone went over to them, gnawing a bone, and asked for a large knife. An Indian handed it to him, and Boone appeared to swallow it. Then he slowly pulled the knife out of his stomach, as it seemed, through his hunting shirt and handed the knife back. The red men thought they were in the presence of the Evil One, and they ran away like the wind.

Boone became Kentucky's greatest hunter and explorer. Other hunters followed him. After staying there for two years, Boone returned to North Carolina to bring his family to Kentucky and make it his home. He called Kentucky an "earthly Paradise."

He started for his new home with his family and a number of others, but not far from Cumberland Gap he lost his oldest boy. James Boone, this sixteen-year-old son, was surprised and scalped by Indians. An Indian war was at hand, and the settlers dared not then go farther.

Kentucky was not a dwelling place for Indians; it was their hunting ground. They saw white men coming to settle there and kill their game. The Indians determined to drive them out or kill them. The next year (1774) Lord Dunmore, then governor of Virginia, sent Boone wherever there were settlers in Kentucky to warn them to leave. Boone traveled

eight hundred miles through the Kentucky wilderness, carrying the warning. An Indian war on a large scale, known as Lord Dunmore's War, began. The white men won and made the Indians north of the Ohio promise not to hunt in Kentucky any more.

The Cherokee (chěr-ō-kē') Indians lived south of Kentucky and came there to hunt. Richard Hen'derson of North Carolina bought (1775), for fifty thousand dollars' worth of goods, the rights of these Indians to Kentucky. Henderson called this region Transylva'nia. He hoped to be its proprietor in much the same way as William Penn had owned Pennsylvania. Since the Indians both north and south had promised not to come to Kentucky any more, it seemed as if there might be peace. Boone then brought his wife and children to Kentucky.

How Boone Helped Bring Settlers to Kentucky

Henderson wished to sell farms to settlers. He employed Boone to build a famous road along which settlers might more easily come to Kentucky. Boone was asked to make the road because he knew most about Kentucky. Henderson's Transylvania plan was a failure. Virginia owned Kentucky, and he had not bought the land from her. Yet Kentucky owes much to Henderson for bringing settlers there and for employing Boone to make a road.

In less than two weeks, Boone and his thirty helpers laid out two hundred miles of what is known as the Wilderness Road. They finished this task so quickly



BUILDING THE WILDERNESS ROAD

because much of the road was a buffalo path made by the trampling of tens of thousands of buffaloes. The road, as Boone left it, was not a wagon road, but it served for men and animals.

The Wilderness Road began in eastern Tennessee, passed through Cumberland Gap into Kentucky, and ended at a fort called Boonesboro (*bōonz'bü-rō*) on the Kentucky River. The western fork of the road turns to the left before reaching Boonesboro and passes through Har'rodsburg to Louisville (map, p. 84).

Over the Wilderness Road came most of the early settlers, thousands of them, to Kentucky. It was the safest way to enter Kentucky. For more than twenty years after Boone came, Indians made travel on the Ohio River very dangerous. Even as late as the year before Kentucky became a state (1792), an attack was made on nine men, three women, and eight children, who were floating down the Ohio on a flatboat. Twenty-five Indians in canoes fired a hail of bullets at them, killing or wounding seven men. After the Indians had been driven away, a small boy said: "You told me to keep still, and I kept still. Now please take this bullet out of my head. That's not all. Here's a bullet in my arm which has broken it."

We may say that the Wilderness Road affected our history in two ways: (1) It brought enough settlers to keep Kentucky in American hands. (2) It helped to make Kentucky a base for taking and holding the Northwest.

Entries from the Diary of a Pioneer on the Wilderness Road

Let us read these entries from the diary of William Calk, who went over the Wilderness Road (1775). They are copied with the punctuation, spelling, and capitals found in the diary. It will be good practice for you to put these entries into modern form.

1775, April Saturday 8th — We all pack up and started crost Cumberland gap about one oclock this Day Met a good maney peopel turned Back for fear of the indians but our Company goes on Still with good courage . . .

tuesday 11th — Mr. Drake Bakes Bread without washing his hands we Keep Sentry this Night for fear of the indians.

sunday 16th — we start early and go on about 2 miles down the river and then turn up a creek that we crost about 50 times some very bad foards with a great Deal of very good land on it . . .

wednesday 19th — smart frost this morning they kill 3 bofelos about 11 oclock we come to where the indians fired on Boons company and killed a man and a dog and wounded one man in the thigh we campt this night on otter creek.

thursday 20th — we start early and git Down to caintuck to Boons foart about 12 oclock where we stop they come out to meet us and welcome us with a voley of guns.

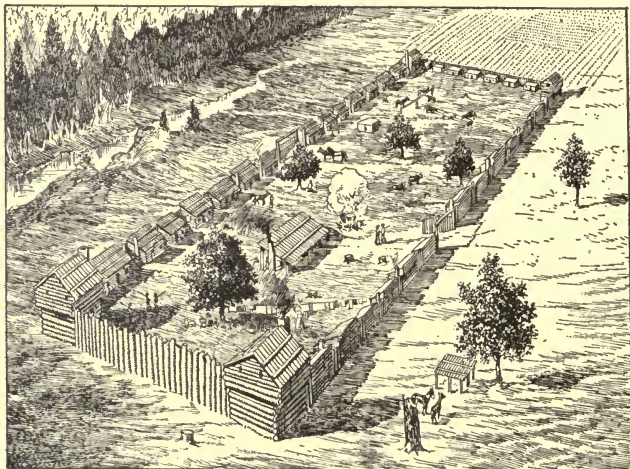
Satterday 29th — We git our house kivered with Bark and move our things into it at Night and Begin house-keeping Eanock Smith Robert Whitledge and myself.

May tuesday 2nd — I went out in the morning and killed a turkey and come in and got some on for my breakfast and then went and sot in to clearing for Corn.

Boonesboro

The “Boons foart” mentioned in this diary was Boonesboro. Daniel Boone, for whom it was named, brought his family there to live. Boonesboro was like

most of the frontier forts of that time. It was about two hundred fifty feet long. The wall of the fort was made partly of the backs of the thirty log cabins and partly of upright posts where there were no cabins. The roofs of the cabins were pitched only one way, sloping



BOONESBORO FORT, 1778

inward, as shown in the drawing on this page. This inward slope made it possible for a man to lie on the roof and shoot outward over the top without being hit. At each corner of the fort was a two-story blockhouse. The upper story projected beyond the lower, so that it was possible to shoot along the wall to keep Indians from building a fire there. There were gates on opposite sides of the fort. Outside lay the fields where

cattle grazed. In time of attack the cattle could be driven inside the fort. The water was brought from the Kentucky River, sixty yards away.

Indians Capture Three Girls

In the next summer (1776) after Boonesboro was built, three girls — Jemima, Boone's daughter, and Elizabeth and Frances Callaway — went out in a canoe on the Kentucky River and were seized by five Indians. They threatened to tomahawk the girls if they made an outcry or fell behind. All started for the Ohio at a rapid pace. The girls knew they would be killed if they were seen breaking a twig or giving any sign, but they managed sometimes to drop a torn bit of clothing or to drag a foot on the ground. They thought that Boone would see these signs if he could find which way they had gone.

It was late when the girls were missed. Boone and three young men, the girls' lovers, found the canoe and the trail. The night was dark, and they had to wait until daylight. Then they followed the trail for thirty miles. On the second morning, Boone saw blue smoke. They crawled ahead noiselessly. They knew the girls would be killed at once if the Indians caught sight of the pursuers. After what seemed an age, they saw the Indians cooking buffalo meat over coals. A few feet away were the three tired, despairing girls.

Boone and the other men took aim at the Indians, then fired and rushed ahead, yelling. Two of the Indians were killed, and the rest ran away without their moccasins, knives, or tomahawks.

Few stories in American history end more happily. The first marriage in Kentucky came three weeks later at Boonesboro, when Samuel Henderson, one of the pursuing lovers, married his sweetheart, Elizabeth Callaway. A fiddler furnished the music for the dancers, and candles of buffalo tallow supplied the light. The first watermelons grown in Kentucky and the choicest buffalo steak were served at the wedding.



THE FIRST WEDDING AT BOONESBORO

The bride and groom are leading the dance to the music of a fiddle.

Flanders Callaway soon married Jemima Boone, and John Holder was wedded to Frances Callaway. Thus all the lovers were united, thanks to the skill of Daniel Boone in pursuing the Indians.

Boone's Capture and Escape

A little more than a year later (1778) Boone was captured while boiling out salt from salt springs at some distance from Boonesboro. The Shawnee Indians, a tribe living north of the Ohio River, were his captors. They had broken their treaty in which they had promised to keep out of Kentucky. All through his life Boone was a likable man. Even the Indians liked him. The chief adopted him as his son and gave him the name "Big Turtle." They plucked all the hairs out of his head except those in his scalp lock. They scrubbed him in a river to remove the taint of white blood.

After Boone had lived with the Shawnee Indians nearly five months, he learned of an intended attack on Boonesboro. Great Britain had determined to use the Indians to drive the white settlers out of Kentucky. Boone ran away and was followed almost at once by the fastest runners from among five hundred Indians. They were ahead of him, behind him, and on each side of him. But he managed to hide from them all, and to outrun them in the end. He made the dash to Boonesboro in four days, stopping to eat only once.

Attack on Boonesboro

The Indians knew that they could not now surprise Boonesboro and take it without a struggle. Boone had finished the wall of posts and brought enough water inside the fort to last for a short siege. The cattle were taken inside when the enemy came.

More than four hundred Indians made the attack, under the leadership of British Canadians. Boone had probably not more than fifty men and boys, assisted by women and girls, to defend the fort. The long line of outside wooden wall had to be guarded night and day against fire and assault.

The Indians seldom continued an attack very long if they were not successful. The attack on Boonesboro was kept up night and day for nine days. They tried two ways of attack: (1) to build a fire in the night against the wooden posts around the fort, (2) to tunnel under the fort to blow it up.

Let us imagine that we are in the fort. We might give an account like this of the last night: "We are so tired from want of sleep that we cannot stand the strain much longer. To-night all of a sudden we see a fire blazing high against the side of the fort. A rain of bullets keeps us from going outside to tear the burning sticks away. The fort is on fire. Our time has come, but we will each die fighting like ten men.

"Then there comes a flash that lights up the sky. It is answered by a voice from the heavens, so loud that the rifle fire of the Indians seems like silence. Rain pours down. The fire is out. We had not even noticed that a thunderstorm was gathering.

"Morning has come at last. The rain has caved in the Indians' tunnel. They are leaving. They say there is no use in staying longer, for the Great Spirit is fighting on our side."

The defense of Boonesboro was really a battle of the Revolution. The British thought that its capture would make it possible for them to take all Kentucky. They had supplied their Indian allies with rifles and ammunition to drive out the white settlers. Boone's heroic defense of the fort saved Kentucky.

General George Rogers Clark was in the Northwest Territory, farther west, at the time of this siege. He had already taken the towns of Kaskaskia and Cahokia (pp. 88, 89). He was waiting to begin his great march to Vincennes the next February. If Boonesboro had been captured, he might have been forced to retreat without taking Vincennes.

After Boonesboro

Kentucky grew stronger after Boonesboro was saved. Many new settlers took courage and came in by the Wilderness Road. People began to live on

separate farms. Boone moved to his own farm a few miles from Boonesboro.

Trouble with Indians did not cease. The red men often came and shot settlers in the fields. The settlers carried the war into the Indians' country again and again, and at last triumphed.

Virginia knew that there were times when Kentucky would have been deserted if it had not been for Boone. While Kentucky still belonged to her, she gave him as a reward one thousand acres of good Kentucky land.

Boone was educated to meet the needs of the frontier. He never learned how to deal with politicians. Kentucky became a state in 1792. A law was passed that any one could take land which was not registered in somebody's name by a certain date. Politicians were eagerly waiting for such pieces of land. Boone thought Virginia's grant gave him and his heirs the land for all time. He did not know that he needed to have it registered. Some others on the watch for his land filed a claim to it. Boone awoke to the fact that he did not have an acre in the state he had saved.

Boone left Kentucky in disgust. He went first to Virginia and then to Missouri, where he tried to live his old life of hunting and trapping. He died in Missouri (1820) and was buried there beside his wife. A quarter of a century later the legislature of Kentucky had their remains removed and buried in a cemetery

overlooking the Kentucky River and the State Capitol at Frankfort.

THINGS TO DO

Remember the date of our Declaration of Independence (1776). The first six chapters have told how our country gained its independence. The events, sayings, and titles in the first column below are given in the order in which they occurred. Match each with the right name in the second column.

- | | |
|---|-------------------------------|
| 1. "Every man's house is his castle" | <i>a.</i> Benjamin Franklin |
| 2. Boston Tea Party | <i>b.</i> Patrick Henry |
| 3. Settlement of Kentucky | <i>c.</i> Daniel Morgan |
| 4. "Give me liberty or give me death" | <i>d.</i> George Washington |
| 5. Commander in chief in the Revolution (1775-1783) | <i>e.</i> Nathanael Greene |
| 6. Our first minister to France | <i>f.</i> Samuel Adams |
| 7. "I only regret that I have but one life to lose for my country" | <i>g.</i> John Paul Jones |
| 8. Foreign nobleman who was made major general in the American army | <i>h.</i> James Otis |
| 9. Drillmaster of the Revolution | <i>i.</i> Daniel Boone |
| 10. Conquest of the Northwest Territory | <i>j.</i> George Rogers Clark |
| 11. "I have not yet begun to fight" | <i>k.</i> Baron Steuben |
| 12. Battle of Cowpens | <i>l.</i> Nathan Hale |
| 13. Battle of Guilford Court House | <i>m.</i> Lafayette |

Let any boy scouts in the class tell how much of Daniel Boone's education they have.

Tell how many birds you know from their song or call.

Trace the Wilderness Road on a map.

In the school yard measure off the length (250 feet) of Boonesboro fort. Imagine the Kentucky River flowing west, 180 feet to the north of the fort. This will help you to understand the Indian attack on Boonesboro.

Make and help act a play made up of scenes that took place in and around Boonesboro.

Write a letter such as a Boonesboro boy or girl might have written to a cousin in North Carolina to tell about the attack of the Indians on Boonesboro.

See if you can find other stories about Boone's adventures with the Indians.

SOME BOOKS THAT WILL HELP YOU

White, S. E., *Daniel Boone, Wilderness Scout*, edited by H. E. Hawkins.

Perry and Beebe, *Four American Pioneers*, 11-68.

Nida, W. L., *Following the Frontier*, Chapters VIII (Through Cumberland Gap); X.

Gulliver, L., *Daniel Boone*.

Blaisdell and Ball, *Pioneers of America*, 22-29 (Boone); 107-114 (Over the Wilderness Road).

REFERENCES FOR TEACHERS. — Barstow, C. L., *The Westward Movement (Century Readings in United States History)*, 69-81 (Boone and the Wilderness Road); Bruce, H. A., *Daniel Boone and the Wilderness Road*; Skinner, C. L., *Pioneers of the Old Southwest (Chronicles of America)*, 24-30, 52, 53, 83, 90-156, 272-285 (Boone).



COTTON FIELD

CHAPTER VII

ELI WHITNEY

MOST of the men that we have met in this book either took part in war or had much of their attention turned toward it. Men had to fight for their independence in the Revolutionary War. Warriors like George Rogers Clark were needed to extend the western boundary of our country to the Mississippi River. Daniel Boone had to fight to protect his new home from Indians.

We now turn from war to peace. Eli Whitney (1765-1825) was only ten years old when the Revolutionary War began. This war was over before his boyhood ended, so he took no part in the fighting. He began the new work that we are doing to-day — inventing and making things. His most important invention

caused our country to raise more cotton. He showed new ways of using machinery. He would soon have felt at home in the age in which we live.

His Boyhood

Eli Whitney, one of the world's great inventors, was born on a farm about ten miles east of Worcester (wōōs'ter), Massachusetts. He liked to use his father's tools to make things. He was happy when he could take machinery apart and put it together.

Eli did not feel well one Sunday morning, so he did not go to church with his father. He picked up his father's watch to amuse himself, and wondered if he had time to take it apart and put it together before his father returned. There were so many parts that he hesitated at first, for he knew what would happen if he made a mistake or was caught with his work unfinished. He became so interested that he took out screw after screw, and wheel after wheel, until all the parts lay before him on the table. They were a wonderful sight to the boy. He was unusually quick in seeing how one part of a machine is related to other parts. That quickness and the length of the preacher's sermon made it possible for him to put the watch together before his father came home.

During the Revolutionary War young Whitney made himself useful by hammering out nails for carpenters.

He also made hairpins for women and shocked his father by making violins, which his father called "fiddles."



WHITNEY TAKING HIS FATHER'S WATCH APART

When his mother lost one of her set of fine table knives, he made another to match.

He Attends College and Decides to Teach

Whitney taught school and did several kinds of work to earn money to go to college. This took him so long that he was not able to enter until he was twenty-four. While in college, he heard a professor complain that a piece of imported apparatus would have to be sent to Europe to be repaired.

"Before you send it away, give me a chance. I think I can mend it," said Whitney. He had it ready for use in a short time.

"There was a good mechanic spoiled when you came to college," said a carpenter.

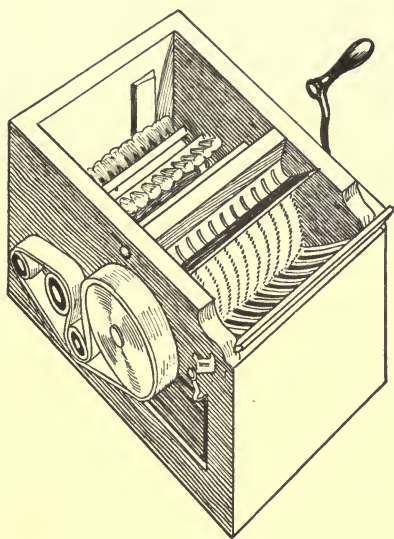
It is likely, however, that Whitney would never have been heard of as an inventor if he had not gone to college. We find in the Yale College catalogue the name Eli Whitney, A.M., among the graduates of 1792. In those days a college graduate usually became a teacher, a clergyman, or a lawyer. Whitney decided to teach. This was a lucky decision for the world, since it took him to the South, where cotton was grown. We might never have heard of him if he had not accepted a position to teach there.

Whitney sailed on a vessel for Savannah, Georgia. On the same vessel was the widow of the famous General Nathanael Greene (pp. 72-76). She invited Whitney to visit her plantation near Savannah. While there, he heard a group of planters say that they had good cotton plantations but that they could not raise cotton at a profit. They declared that it cost as much as the cotton was worth to separate its fiber from the seeds.

"Let me introduce you to my young friend Mr. Whitney," said Mrs. Greene. "He can make almost anything. Get him to invent a machine."

Whitney's Cotton Gin

Whitney had never even seen a cotton plant. He went to Savannah the next day and got some cotton from which the seeds had not been removed. He began to experiment and thought first of using teeth



MODEL OF WHITNEY'S COTTON GIN

like those in a circular saw, but he had no plates of thin steel or even iron at hand. One day some thick iron wire came to Mrs. Greene's house for a bird cage for her daughter. The wire was thicker than Whitney wanted, but he believed he could draw it out and thus make it thinner. He thought it would

then make teeth for a revolving cylinder that would pull the cotton lint from the seeds.

The man who had engaged Whitney to teach said to him: "I find I can pay only half of what I offered you." Whitney took some time to consider the changed offer. He soon made such progress on his invention that he refused the teaching position.

In olden times, the stories say, good fairies had magic wands that could quickly do wonderful things. Whitney fixed the wire teeth on the cylinder of his cotton gin so that, with other parts of his machine, it proved as wonderful as a fairy wand. Wherever the new invention went, cotton sprang up. It paid the planters to raise millions of pounds of cotton instead of a few thousand. Nothing like this had happened before in the world.

This is a true story, not a fairy tale, but real history is more wonderful than a fairy story when it tells how Whitney's magic clothed the world. Here are the facts which show what his magic did.

A slave could pick the seeds from only a pound of cotton lint a day. A man using Whitney's cotton gin could clean fifty pounds a day. Before this invention (1793), all the cotton grown yearly in the United States could have been raised on one plantation of two hundred acres. The year before his invention, the United States sent abroad less than a hundred and forty



COTTON GINS IN OPERATION

This type of gin was developed from Whitney's small hand model.

thousand pounds of cotton. In 1800 we exported nearly eighteen million pounds. We now export cotton by the billions of pounds. It is our most valuable export crop. And we also use billions of pounds in our own cotton factories.

Cotton had been planted on only a narrow strip along the Atlantic. The new invention made cotton so cheap that nearly everybody wished to use it for clothing. All the southern states from the Atlantic Ocean to the Mississippi River began to raise cotton. The price of land that would raise cotton doubled almost at once.

Before the coming of the cotton gin, about five per cent of the clothing of the United States and Europe was made from cotton. The other ninety-five per cent was mostly wool and linen. After the invention of the cotton gin, more and more cotton was used in clothing. The time came when enough of Whitney's gins were driven by steam in one building to clean a hundred thousand pounds of cotton in a day.

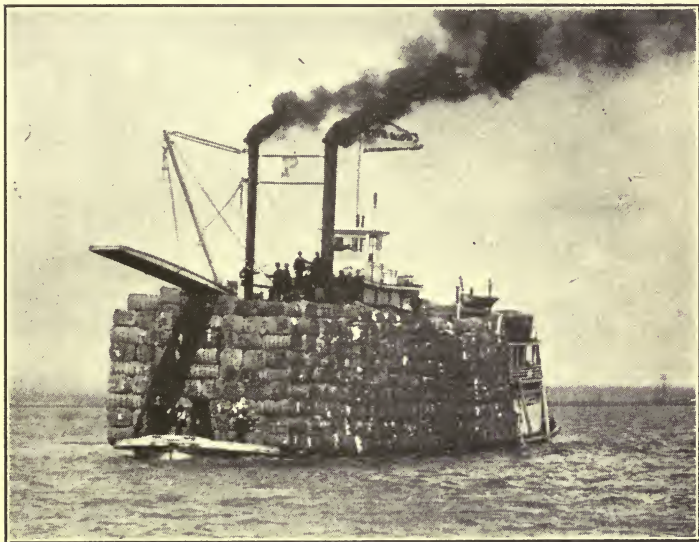
Whitney's Reward for His Invention

We should naturally think that Whitney's cotton gin would have made him very wealthy. He said that the whole amount received by him for his patent did not equal the value of the labor saved in one hour by his machines in the United States. Some of the reasons for this strange lack of reward will interest us.

In the first place, the building where the cotton gin was kept was broken open and the model was stolen. It was a simple machine and could easily be made by a blacksmith. If it had been hard to understand, like the telephone, the story would have been different. More than four months passed between Whitney's application for the patent and the time when it was granted and signed by President George Washington. During that time many machines were copied from his model and widely used.

A few states paid him for the right of their citizens

to use his cotton gin. He spent nearly all this money in lawsuits trying to protect his patent. Juries would not decide in Whitney's favor. Some said that the cotton gin was as simple and as necessary as breathing and that neither the cotton gin nor breathing should



A STEAMBOAT LADEN WITH COTTON

This type of boat was commonly used on the Mississippi River to transport cotton.

be patented. Others declared that Whitney was not the inventor. Finally, a United States court decided that he was the inventor and forbade any one to use his cotton gin without permission. The patent then had only a few more years to run. Congress refused to extend the life of the patent.

The Cotton Gin Prolongs Slavery

Men were talking of freeing their slaves before Whitney invented his cotton gin. There was often not enough to do to pay for keeping many slaves. The cotton gin made slaves valuable for work in raising cotton. The world called for more and more cotton, and the planters called for more and more and more slaves. Whitney's cotton gin made it impossible to free the slaves before the Civil War (1861-1865).

Whitney Makes Firearms; His New Method

Some spend their lives in crying over spilled milk. Others, like Whitney, try harder to make good their loss. Whitney built at New Haven, Connecticut, a factory to make guns. This business brought him wealth.

Before Whitney's time, firearms were made by hand. The lock of one gun would not fit another gun. The screws made for different guns were not the same size. If a lock was broken or a screw lost, one had to be made by hand to fit.

The United States gave Whitney an order for ten thousand guns for the army. He said: "I shall make the first pattern for these guns so exact that the separate parts must fit every other gun of the same pattern. These parts will be just as much alike as pictures from the same copper-plate engraving."

He invented special machinery to make each part quickly after one pattern. Whitney manufactured a large number of separate parts before he put them together in a gun. The army officials at Washington advanced Whitney money to make the guns. They



WHITNEY BEFORE THE ARMY COMMISSION

learned that he had made many parts of guns but no completed weapon. They feared that the parts would not fit and that the money would be lost. He decided to relieve their fears by taking to Washington the separate parts of ten guns. He was at once told that any number of parts was not a gun. He then took

rapidly one part from each of ten different piles and soon showed the officers a completed gun. He next shuffled the parts and quickly handed them the other nine guns.

The Modern World's Two Debts to Eli Whitney

We might like this story of Whitney better if he could have made his wealth from his cotton gin. That made it possible for people to get clothing cheaper. It proved a blessing to all nations. It harmed nobody. Whitney himself wrote: "The cotton gin makes the labor fifty times less without throwing any class of people out of business."

The world seemed more willing to give him wealth for making firearms, but there are reasons why we should be thankful for his later story. He showed the modern world two ways of manufacturing things cheaper. (1) He invented machines to take the place of hand workers after the first patterns were made. Such inventions led to our present production on a large scale. (2) He showed manufacturers how standard parts save money, time, and trouble.

Whenever we get a new part quickly and cheaply to replace a broken or worn one in an automobile, let us think of Eli Whitney. We should also remember him when we buy cotton clothing or fabrics that his cotton gin made possible. Part of one's pay for doing

things comes from the gratitude of others. Whitney deserves our thanks for his cotton gin.

THINGS TO DO

Write on the board: "This is a cotton plantation in Georgia." The actors are: Mrs. Nathanael Greene, Eli Whitney, and five or six cotton planters. The play tells why Whitney set out to make his cotton gin.

Name some stories in which fairies or others with magic wands did wonderful things quickly.

Write a few sentences explaining how the cotton gin affected slavery in the United States.

Study the cotton map in your geographies to see how many states raise cotton to-day.

Notice how much cotton is used in your home. Do you use more cotton than wool? silk? rayon? linen?

Tell how Whitney made guns more cheaply and quickly than in the old way.

Ask your mother and father what things they use for which they can get standard parts.

If there are any factories in or near your town, find out whether they make standard parts.

SOME BOOKS THAT WILL HELP YOU

Bachman, F. P., *Great Inventors and Their Inventions*, 105-120.

Perry, F. M., *Four American Inventors*, 73-130.

Parkman, M. R., *Conquests of Invention*, 63-80.

Lefferts, W., *Our Country's Leaders*, 160-168.



INDIANS OF THE WEST

CHAPTER VIII

THOMAS JEFFERSON AND ANDREW JACKSON

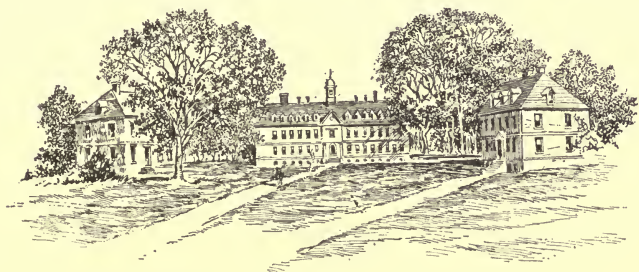
WE shall be more interested in Thomas Jefferson (1743-1826), the third President of the United States, if we try to solve a problem about him as we read these pages. What did Jefferson do to cause him to be mentioned so often to-day although he has been dead more than a hundred years? Of all our Presidents who died before 1900, he is mentioned more often than any other except Washington and Lincoln.

The Youth of Thomas Jefferson

Jefferson was born near what is now Charlottesville (shar'lots-vil), Virginia. Trees had to be cut to build his boyhood home in the pathless forest. He did not need to go more than a few rods from home to begin

hunting wild turkeys and deer. The farm and the forest helped to train Jefferson as they had trained Washington, who was eleven years older.

Jefferson's father saw to it that his son had a good education. The boy had skillful private teachers, and he later graduated at William and Mary College, in Virginia. This was, next to Harvard, the oldest



WILLIAM AND MARY COLLEGE IN 1732

Redrawn from an old print.

college in the colonies. Jefferson said that if he had been given his choice between a large estate and a good education, he would have chosen education. He was a friend of education all his life.

How Jefferson Spent His Life

We have seen that college graduates in Jefferson's time usually decided to enter one of three professions (p. 122) and that Eli Whitney by accident became a manufacturer. Jefferson was a lawyer. He practiced

law for eight years, until he had nearly five hundred cases in one year.

He spent almost forty-four years in public service. We shall get an idea of his unusual life by merely reading over the names of the most important offices that he held. He was a member of the second Continental Congress when he drew up the Declaration of Independence. He was governor of Virginia at a critical time during the Revolution. He followed Benjamin Franklin as minister to France. He became Secretary of State under President Washington. After Washington's second term as President, Jefferson was elected Vice President, and then President of the United States for two terms (1801-1809).

At the age of sixty-six Jefferson went home to Virginia and spent the remaining seventeen years of his life as a gentleman farmer at Monticello (mŏn-tĩ-sĕl'ō), his beautiful home near where he was born.

Some take for their motto: "Time is all I have." Jefferson tried to follow this motto. He early became a miser in using time. He could not bear to waste it. When seventeen years old, he wrote: "One of several reasons why I wish to go away to college is because company at home makes me lose one quarter of my time from school." He often studied fifteen hours a day at college. He is mentioned so often to-day partly because he saved time to do things worth while.

He later wrote to his daughter: "A mind always employed is always happy. The idle are the only wretched."

The manager of Jefferson's plantation found Jefferson sitting idle in his room only twice during twenty years. One of these times he had toothache, and the other, neuralgia. Jefferson said that in fifty years he had 18,250 races with the sun to see who should rise first. He won every time.

Jefferson's Kindness

Jefferson's personal qualities have made him remembered. For one thing, he was a kindly, true gentleman.

There were few bridges across the rivers in Virginia: It was usual to travel on horseback and to have the horse swim the river. One day an old man was waiting for a ride across a river when three horsemen appeared. The old man looked at their faces carefully. Then he asked one: "Will you please let me ride across the river behind you?"

"Of course," the rider answered pleasantly.

"How did you come to ask that man?" asked another of the three riders.

"None of the others looked as if I would be welcome," was the reply.

"You showed good sense when you chose him,"



AN OLD MAN ASKS JEFFERSON FOR A RIDE ACROSS THE RIVER

said the other rider. "The people have asked him to be their President."

The old man was stunned to think that he should have been bold enough to ask President Jefferson, but he need not have been worried. Jefferson, like Samuel Adams (p. 18), was fond of people.

Jefferson did not despise the poor man or the slave. He had slaves that had been left him, but he thought that slavery was wrong. He was accompanied by his grandson one day when a negro bowed. Jefferson returned the bow, but his grandson did not. "Do you permit a negro to be more of a gentleman than yourself?" asked Jefferson.

Seven "Nevers"

Jefferson followed seven "nevers," which throw much light on him as a man.

(1) He never used tobacco.

(2) He never played cards.

(3) He never gambled.

(4) He never had a personal quarrel. This rule led him to be a powerful champion of peace between nations. He said that if he was ever glad to have power, it was when as President he prevented war between the United States and Great Britain (1807). Some people then wanted war at once because a British man of war had fired on an American war vessel and compelled her to stop and be searched for English sailors. The British prime minister apologized and offered to pay damages. War was thus avoided.

(5) When Jefferson became a member of the Virginia legislature, he determined never to make money out of his office. It would have been better for our country if all in public office had followed this "never."

(6) He asked his oldest daughter Martha to teach his sixth "never" to her younger sister Polly. "Teach Polly," he wrote, "never to be angry; anger serves only to torment ourselves and amuse others." The overseer of Jefferson's plantation said: "I was with Mr. Jefferson twenty years, and I never saw Martha

out of temper. I never saw two other persons in this respect like her and her father."

(7) Jefferson's seventh "never" was of a different kind. He never failed to take a walk when it was possible. He wrote Martha: "There is no habit you will value so much as that of walking. Health is the first of all aims."

Jefferson's Love of Country Life and Farming

Jefferson was fond of farming. He liked the country and disliked cities. He knew the name of every tree on his plantation and the date when he might expect the first wild flowers in spring. He loved flowers and had the best tulip and hyacinth bulbs sent to his garden from Europe.

He helped to improve farm machinery. France gave him a gold medal for making a better plow. The mold board for turning the soil over was made the right shape, and the plow could be drawn by fewer oxen. He brought from Scotland the first threshing machine in Virginia.

When Jefferson was in Europe, he sent home some seeds and plants for American farmers. He thought the rice grown in Italy was the best that he had seen, so he filled his long pockets with Italian rice and carried it with him. This seed was distributed among South Carolina planters, and from it has come, year

after year, much of the best rice grown in America, down to the present time.

He enjoyed himself for years in building a famous country home on Monticello (from the Italian word for "little mountain"), a hill nearly six hundred feet



Brown Bros.

JEFFERSON'S STUDY AT MONTICELLO

Monticello is to-day one of the famous historic homes in America.

high. From it he could look down on the University of Virginia, not far away, which he had planned and helped to build. Great men and hundreds of other guests came to see him there. Monticello still remains

one of the nation's most interesting homes. It is perhaps the only home where three ex-Presidents often met. They were Jefferson, Madison, and Monroe. All three lived within a few miles of each other.

Jefferson's Two Greatest Deeds

Jefferson showed his unusual ability in many ways. He was perhaps the greatest politician (p. 19) that the United States ever had, but he never made any money in this way. Two of his deeds stand out above all others. Jefferson himself selected one of these to be mentioned first on his monument at Monticello:

“Author of the Declaration of American
Independence.”

History selects the second because it grows more and more important every year. It is the purchase of Louisiana (1803), which then meant the greater part of our country west of the Mississippi River. We shall see later in this chapter how very important it was.

The Declaration of Independence

The Declaration of Independence, which Jefferson wrote, made a great plea for democracy. By democracy Jefferson meant that all men should have an equal right to life, liberty, and the pursuit of happiness, and also a voice in saying how they should be governed.



DRAFTING THE DECLARATION OF INDEPENDENCE

The Declaration of Independence would not have been adopted unless others had agreed with Jefferson about democracy. But Jefferson spoke and wrote so well about democracy that he was known as the greatest democratic leader of his time.

Jefferson's democracy meant also freedom to have whatever religious opinions one chooses. Jefferson had inscribed on his monument that he was the author of the law to give Virginia religious freedom.

Jefferson's belief in every man's right to freedom made him dislike slavery. He hoped that sometime it could be ended peaceably. He had a law passed in Virginia forbidding any one to bring in more slaves (1778).

Jefferson believed that if men were to govern themselves, they must be educated. He thought that a democracy made up of ignorant people could not last.

In Virginia at the time of the Declaration of Independence, white men were fined one hundred pounds of tobacco if they did not vote. Jefferson saw that the act of voting made them interested in what they were voting for, and helped to educate them.

He never believed that an ignorant man is equal to an educated one. He wished everybody to be educated. He thought education was so important that he had inscribed on his monument :

“ Father of the University of Virginia.”

The Louisiana Purchase

When Jefferson became President (1801), the United States nowhere touched the Gulf of Mexico. Spain owned Florida, including a strip along the Gulf of Mexico almost to the Mississippi River. Spain had also received from France New Or'leans and the lands west of the Mississippi to the Rocky Mountains. This tract was called Louisiana in honor of Louis, a former French king. We owned no land farther west than the Mississippi River, to which George Rogers Clark had taken our flag (p. 91). (See the boundary marked on the map facing page 201.)

At that time farmers in the Ohio and Mississippi valleys could not send their crops east because there were no railroads. Their corn, pork, and wheat were taken on boats or rafts down the streams to New Orleans. Ships then took this produce where it was wanted. It might go to the West Indies, to cities on the eastern coast of the United States, or to Europe.

Sometimes Spain would allow our farmers to ship this produce from New Orleans, and sometimes she would not. The farmers threatened to bring on war with Spain unless they were allowed to ship what they had raised. Suddenly Spain gave to France all this Louisiana territory. This change of ownership worried Jefferson because France was stronger than Spain.

Let us remember that our first three Presidents were lovers of peace. President Washington kept the United States from war with Great Britain. Our second President, John Adams, would not allow our country to go to war with France.

Jefferson was anxious to avoid war, so he offered France \$2,000,000 for the city of New Orleans and for the right to use the Mississippi to its mouth. Napoleon, one of the great generals of all time, was then master of France. He knew that war was coming with Great Britain, and he needed money for that war. He offered to sell to us all of Louisiana for \$15,000,000. Jefferson saw the chance to escape war, and he had the treaty made by which the United States bought the Louisiana territory (1803). We now owned all the land west of the Mississippi to the Rocky Mountains. The farmers could now send their crops down the river without the leave of any other country. (The area gained by the Louisiana Purchase is shown on the map facing page 201.)

The Lewis and Clark Expedition

A Virginia woman said that Jefferson could ask more questions than any other person she knew. He had long wished to find out whether the land west of the Mississippi River, to the Pacific Ocean, would be valuable to the United States. There were no white

men that he could question about it, for none had been through it. Jefferson had imagination or he could never have planned the most remarkable exploration in the history of the United States.



MERIWETHER LEWIS



WILLIAM CLARK

Statues at the Lewis and Clark Exposition, Portland, Oregon, 1905.

Before he made the Louisiana Purchase, he selected two young Virginians whom he knew well, Mer'iwether Lewis and William Clark, a brother of George Rogers Clark, to lead an exploring expedition from the Mississippi River to the Pacific Ocean. He asked each of them to keep a journal and write down all the

things that he might want to know about the geography of the country, — its rivers, climate, soil, Indians, furs, fishing, hunting, animals, birds, reptiles, insects, trees, plants, and trade.

If Jefferson had searched the United States, he could not have found two young men better suited for such a trip. We may to-day read in the journals of Lewis and Clark how they tried to do everything that Jefferson wished.

Trip up the Missouri River

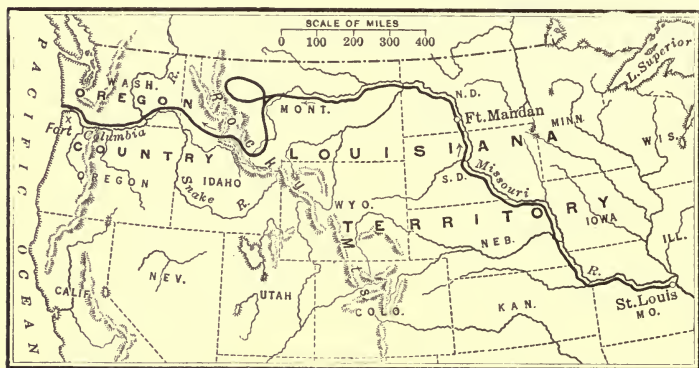
Let us in imagination go with Lewis and Clark on this famous exploration. The explorers were mostly soldiers and boatmen. They entered the mouth of the Missouri River in three boats, May 14, 1804, the year following the Louisiana Purchase.

The explorers' first trade with the Indians was to give them four quarts of whisky for four deer. On June 12 they met two French rafts loaded with furs and buffalo tallow. On June 19 they ate gooseberries and raspberries from bushes along the river. The mosquitoes were so bad that they all slept under netting.

On August 16 they found a creek which the beavers had dammed up. They caught in it eleven hundred fish. Lewis and Clark expected Jefferson to question them about this story, so they noted the kinds of fish, — pike, bass, trout, perch, shrimp. In September

they wrote that their hunters brought them for dinner buffaloes, elks, deer, wild turkeys, and geese. They could not count the buffaloes in a herd they saw — there were so many of them.

Some Indian tribes along the Missouri raised corn, beans, pumpkins, watermelons, squashes, and tobacco.



THE ROUTE OF THE LEWIS AND CLARK EXPEDITION

The Indians sold their furs to French traders, who took them down the river to St. Louis. There was one tribe of Indians that would not touch whisky. They scolded the white men for offering them a liquor that would make them fools.

It was so cold the first week in November that the explorers built a camp somewhat like the fort at Boonesboro (p. 110), but smaller. This camp was called Fort Man'dan, after the name of a tribe of Indians. It was 1600 miles from the mouth of the Missouri. Lewis and

Clark remained there until April 7, before starting west. Then they sent their large boat, manned with seven soldiers, back down the Missouri River. They put in it several boxes of articles for President Jefferson. They sent him two stuffed antelopes, two prairie dogs, and a variety of furs.

They believed that they were the first white men to see a grizzly bear, which they encountered in the spring after they left Fort Mandan. Even if they had seen it earlier, the skeleton would have been too large to send the President. The grizzlies were the only animals that really had sport chasing the white men. Once a grizzly made a number of them jump twenty feet down a steep bank into the Missouri River and then he came



A GRIZZLY CHASING LEWIS AND CLARK'S PARTY

after them. Only a remarkable shot from the shore saved some of them.

West to the Pacific Ocean

At the end of the first week in April, 1805, Lewis and Clark started with thirty-two men in smaller boats up the Missouri, through a region where no white people had been before. They took with them a French interpreter and his wife, an Indian girl named "Bird Woman." She was the sister of the chief of the Shosho'ne tribe of Indians who lived near the source of the Missouri; but five years before this she had been captured and adopted by another tribe. Her name, in Indian language, was Sacajawe'a or Sakakawea. She ranks next to Pocahontas as our Indian heroine.

Once the canoe which held Lewis and Clark's papers and other valuable articles was upset in a squall. Like a flash Bird Woman rushed into the water and saved some of the things that were spilled out of the canoe. "No one was braver," wrote Lewis. Clark once saw her husband strike this bright and faithful girl and gave him such a warning that the blow was not repeated.

The explorers went up the larger fork of the Missouri, named the Jefferson River, in honor of the President. After a while they could stand with their feet on oppo-

site sides of the stream, which had shrunk to a mere brook.

In the southwestern part of what is now Montana, Bird Woman found the tribe of Shoshone Indians and



SACAJAWEA

Statue by Bruno Louis Zimm, at the World's Fair, St. Louis, 1904, celebrating the centennial of the Louisiana Purchase.

met her brother, their chief. Pocahontas saved the colony of Jamestown in Virginia from perishing. Without Bird Woman, the Lewis and Clark expedition must have ended at the Rocky Mountains. But her brother gave Lewis and Clark horses and a guide to

make it possible for them to find the mountain passes and the way down to the Columbia River. She went with them all the way and thus helped to give the United States a right to claim this Oregon country by exploration. The Louisiana Purchase extended only to the Rocky Mountains.

East of the mountains the explorers had all the game they could eat. West of the mountains they almost starved and were forced to eat roots. When they reached the Columbia River, they went down it in boats. They saw the Pacific Ocean on November 7, 1805. They built a fort a little south of the Columbia River and passed the winter there.

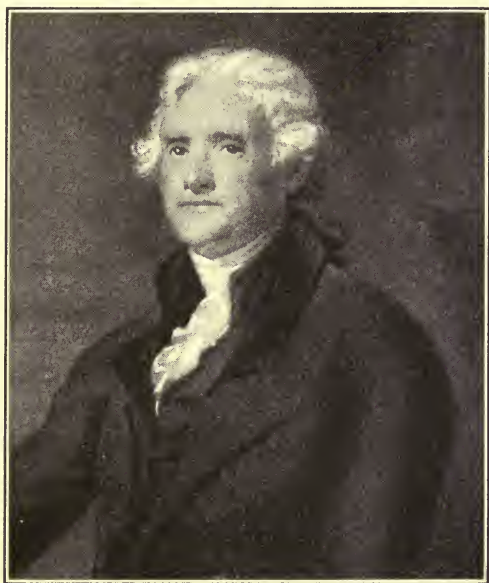
Lewis and Clark spent many a day in writing their journals. In the last week of March, 1806, they started back to cross the mountains. When Clark was lost in crossing them, Bird Woman guided him right. The explorers reached Fort Mandan in August and left her and her husband there. Lewis and Clark wanted to take them to the land of the white man, but her husband said he could not make his living there. She wished to go with them and wept when they left. Clark said he was sorry they could not reward this "truly admirable" girl as she deserved.

Lewis and Clark reached St. Louis the last week in September, 1806, having been gone nearly two and a half years on their great expedition. President Jeffer-

son was well pleased with their journals, which now fill several printed volumes and are a landmark in the history of our country.

Our Picture of Jefferson

What do you see when you form a picture of Jefferson? This question was asked of some who knew him



THOMAS JEFFERSON

From a portrait by Gilbert Stuart, in the Bowdoin College collection.

well. They replied: "We see a freckle-faced, auburn-haired man, six feet two inches tall, straight as a gun barrel. He is carrying in one hand the Declaration of

Independence, and in the other, the deed to the Louisiana Purchase. He is talking to a group of common people and asking them to take more part in their own government. This warning is falling from his lips: 'Knowledge will forever govern ignorance.' "

Andrew Jackson

Andrew Jackson (1767-1841), seventh President of the United States, was another friend of democracy. Like Jefferson, too, he also helped to enlarge the territory of the United States.

Jackson's father was a Scotch-Irish Presbyterian who came from the north of Ireland to the southwestern part of North Carolina (1763). He was too poor to buy land in the little settlement where his friends lived. He cleared some unclaimed land and cut timber to build his cabin. Then he raised corn, potatoes, and pigs to feed his family. The father soon died, and the mother had to go with her children to live in the near-by home of her brother-in-law. Andrew Jackson went to a log schoolhouse for a short time, but he never learned how to write well or spell English correctly.

He was the first of our Presidents to be born poor and to have little education. Jackson's idea of democracy was that one man is as good as another, no matter whether he is educated or not. Jefferson thought that men who govern themselves should be educated. He

selected his cabinet, when President, from among college graduates. President Jackson did not pay much attention to education in choosing his cabinet.

Democracy of the Frontier

The frontier was the outer limit of new settlements, where settlers were few and men lived far apart. Jackson was brought up on the frontier, both in North Carolina and in Tennessee, where he went when he was a young man. His democracy was the democracy of the frontier. The people who lived on the frontier believed that a plain, uneducated man could do anything necessary in a democracy if he had common sense. They thought that such a man would make a good President, judge, or general. The men of the frontier were trained to depend on themselves. They built their own houses and made most of their furniture themselves. They got nearly all their food from their own farms and from hunting. If they had no dentist, they would get a blacksmith or some other strong person to pull teeth. If there was no doctor, some one would give a common-sense remedy for sickness.

Frontier life helped to make our people and our country self-reliant. If we do not know the influence of the frontier, we cannot understand how Jackson came to be a judge, senator, general, and President of the United States.



ANDREW JACKSON WHEN HE WAS A YOUNG LAWYER

An Indian Fighter

Jackson became a lawyer and was appointed by the governor of Tennessee to bring lawbreakers to justice. He traveled on a frontier route among hostile Indians and white lawbreakers. He was known as the most daring man in Tennessee. Nothing could scare him. He once brought into court a powerful blacksmith who had dared any officer to arrest him.

Our second war with Great Britain, known as the War of 1812, gave Jackson a chance to become famous. Whitney's cotton gin (pp. 123-124) had made cotton raising pay so well that white men were crowding into

Alabama and taking the best lands away from the Creek Indians. The red men counted on British support, and they killed more than four hundred white settlers in southern Alabama (1813). Jackson, in command of Tennessee soldiers, marched against them and almost destroyed the Creek nation at the battle of Horseshoe Bend in eastern Alabama. He was then appointed a major general in the army of the United States.

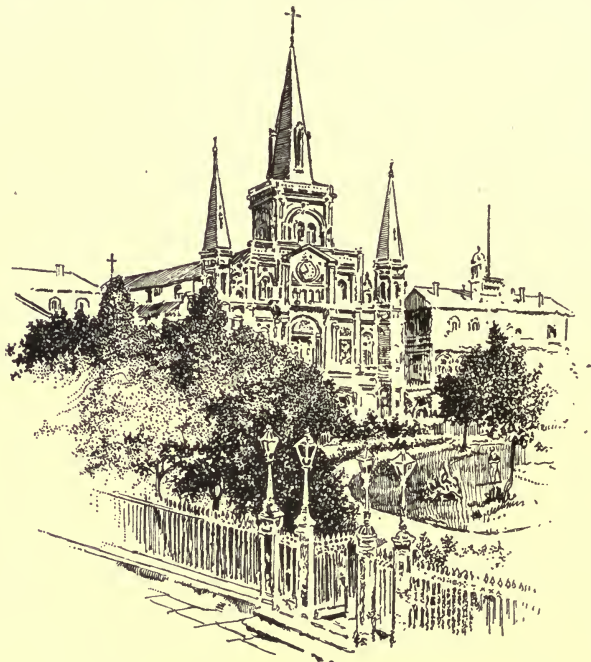
Not long after, Jackson fought his greatest battle against the British at New Orleans. He had a much smaller force, but he handled his soldiers so skillfully behind their intrenchments that the British were defeated and forced to retreat after losing 2000 in killed and wounded. Jackson lost only seventy-one men. He became the most popular American.

How Florida was Won

Let us now learn how Jackson extended the territory of the United States. Spain owned Florida. Hostile Indians sometimes fled there after attacking settlements in the United States. Great Britain's army and navy had used the Spanish fort of Pensaco'la on their way to attack New Orleans. Florida had become a sort of No Man's Land, where lawbreakers and the enemies of the United States felt themselves safe.

Jackson marched into Florida with an army. He took Pensacola and arrested two Englishmen and two

Indian chiefs. He hanged all four of them as a warning, because he said they had plotted against the United States. Jackson showed the influence of the frontier in his favorite saying: "I will take the responsibility."



JACKSON SQUARE, NEW ORLEANS

This park was named in Jackson's honor.

Spain feared that Jackson might take Florida, and so offered it to the United States (in 1819) for \$5,000,000. The United States gladly accepted the offer. Jackson was appointed its first governor (1821). For the first

time we owned every foot of the seacoast from Maine to Louisiana.

During Jackson's two terms as President (1829-1837), he showed what the frontier called "all kinds of sense." The common people felt that they owned the government. He was able to make his followers think that a common man could be almost anything, from general to President, without special training.

How the United States Grew

Let us now review the way in which the United States grew. At the time of our Declaration of Independence, the thirteen colonies became the thirteen United States. George Rogers Clark and the men of Virginia and of Kentucky, then a county of Virginia, won for us the Northwest to the Mississippi River. A treaty with Great Britain at the end of the Revolution gave us all the territory west of the original thirteen colonies to the Mississippi River. Jefferson made the Louisiana Purchase, which nearly doubled the size of the United States. The purchase of Florida gave us control of the long stretch of seacoast along the Gulf of Mexico to Louisiana.

THINGS TO DO

Write on the board: This is a river in Virginia. Give a one-act play, called *Jefferson's Kindness*.

Give a little play in which Sacajawea, Lewis, and Clark are the chief characters.

Trace the route of the Lewis and Clark expedition from the mouth of the Missouri River to the Pacific Ocean. Take two minutes to explain why it was important.

Tell the class how you have solved the problem why Jefferson is so often mentioned to-day.

Be able to explain in three minutes why Jackson was so much liked by the people.

SOME BOOKS THAT WILL HELP YOU

Stone, G., *Story of Thomas Jefferson*.

Olcott, F. J., *Good Stories for Great Birthdays*, 304-313 (Jefferson, April 13); 279-302 (Jackson, March 15).

Kingsley, N. F., *Four American Explorers*, 9-32 (Lewis and Clark).

Wade, M. H., *Trail Blazers*, a 276-page story of Lewis, Clark, and the Bird Woman.

Nida, W. L., *Following the Frontier*, 217-231 (Louisiana Purchase and the Lewis and Clark Expedition).

Sabin, E. L., *Opening the West with Lewis and Clark*.

Blaisdell, A. F., *Boys and Girls in American History*, 95-103 (Sacajawea, the Bird Woman).

Burton, A. M., *Four Patriots*, 133-192 (Jackson).

REFERENCES FOR TEACHERS. — Curtis, W. E., *The True Thomas Jefferson*; Skinner, C. L., *Adventurers of Oregon (Chronicles of America)*, 27-73 (Lewis and Clark); Wheeler, O. D., *The Trail of Lewis and Clark*, 2 vols.; Hebard, G. R., *Sacajawea, a Member of the Lewis and Clark Expedition*; Ogg, F. H., *The Reign of Andrew Jackson (Chronicles of America)*; Parton, J., *Life of General Jackson*.



A STAGECOACH PASSING AN INN

CHAPTER IX

TRAVEL AND CARRYING THINGS

WE have seen in the last chapter how the United States grew in size. Better ways of travel were needed to keep people living in distant parts of the country in touch with each other. Otherwise, they might have come to wish separate governments.

Away back in the morning of history there were four ways in which men traveled. (1) They walked. (2) They were carried on the backs of animals, such as camels, donkeys, and horses. (3) They used dug-out logs, rafts, and boats on rivers, lakes, and the sea. (4) They finally invented the wheel, a wonderful step forward. Then they could ride in carts drawn by oxen and horses.

People used all these ways of travel thousands of

years before Christ. When our ancestors declared their independence, and for many years after it, they had no other ways of going from place to place. You have read that it took a messenger on horseback eight

NEWS! NEWS!!



AARON OLIVER, Post-Rider,

WISHES to inform the Public, that he has extended his Route; and that he now rides thro' the towns of *Troy, Pittsford, Hoosick, Maplestown, part of Bennington and Shaftsbury, Petersburg, Stephentown, Greenbush and Schoodack.*

All commands in his line will be received with thanks, and executed with punctuality.

He returns his sincere thanks to his former customers; and intends, by unabated diligence, to merit a continuance of their favours.

*O'er rugged hills, and vallies wide,
He never yet has fail'd to trudge it;*

As steady as the flowing tide,

He bands about the NORTHERN BUDGET.

June 18, 1799.

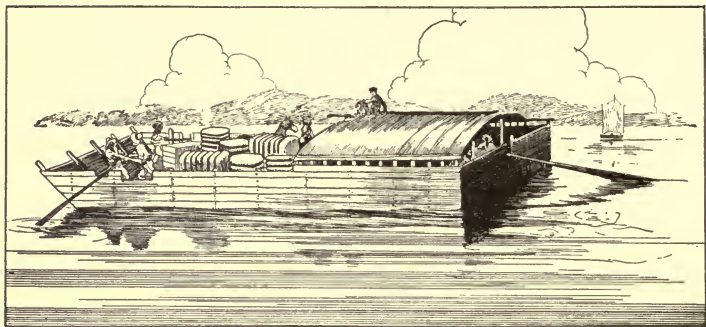
AN ADVERTISEMENT IN A NEWSPAPER IN 1799

days to go from New York to Virginia to notify Washington that he had been elected President. Lewis and Clark used only boats and horses on their expedition. They were gone so long that people thought they were dead.

Study your geography and encyclopedia, question your grocer, and then solve the following problem. Suppose you have a simple breakfast of an orange, a breakfast food made from oats, corn, rice, or wheat, bread and butter, a piece of bacon, an egg, pepper and salt, and a glass of milk. Add up the miles that each of these would need to be carried before it could reach your table. The sum total will give the number of miles of transportation that you have used for your breakfast. How many of these miles are the kinds of transportation listed on page 159 — the only kinds that George Washington could have used?

New Ways of Travel Needed

The early colonists solved the problem of transportation by settling only on or near harbors and rivers. As the population increased, people had to go farther inland. Farmers sometimes found that it did not pay them to cart their wheat twenty-five miles to a place for shipping. A bag of salt carried on the back of a horse some distance inland could be traded for a cow. Iron for an inland blacksmith might become almost as valuable as silver. Those who lived on the Ohio River could put their produce on flatboats of plank fastened together and float it down to New Orleans, but they could not bring their flatboats back against the river current. Such boats had to be sold for what



A MISSISSIPPI RIVER FLATBOAT

Redrawn from a print of 1796.

the planks were worth. Those who took the flatboats down had a long walk back through the forests, sometimes more than a thousand miles. There was also danger of being killed by Indians or outlaws on the way.

After George Rogers Clark had won the Northwest from the British, we had a vast inland country that needed better ways of travel. The Louisiana Purchase doubled our inland territory. The growing country made men anxious to find quicker ways of traveling.

Roads

Good roads could make inland travel quicker. We have seen (p. 107) that Boone laid out the Wilderness Road to bring settlers to Kentucky. Good roads are very expensive. A stone-paved road sixty-two miles long, from Philadelphia to Lan'caster, Pennsylvania,

was built in Washington's administration. This cost a sum equal to more than a million dollars to-day. In the first seven years of the nineteenth century more than three thousand miles of road were built. On many roads the surface was only plain earth. Some roads were made of logs laid across the road (corduroy roads), while others were of plank or stone.

The greatest road in the early history of the United States was called the Cum'berland Road. It began



THE CUMBERLAND ROAD

at the town of Cumberland, Maryland. Boats could come up the Poto'mac River to this point, and transfer passengers and freight to this road. The Cumberland Road went along General Braddock's road (p. 45) from Cumberland to Uniontown, Pennsylvania; then it turned straight to Wheeling, where it met the Ohio River. This broad highway was built of stone by the United States. The first one hundred and thirty miles, to Wheeling, were finished in 1818.

Passenger coaches, painted red, blue, yellow, and

green, were drawn over this road by from four to six horses at a speed of sometimes more than ten miles an hour. Writers of that day often used the two adjectives "matchless," and "exquisite" to describe the work of the drivers, — "The matchless fury of their driving and their exquisite skill in upsetting." The writers also had need of the word "imperturbably" to show that the Kentucky statesman Henry Clay took upsetting as a matter of course. They wrote: "Mr. Clay continued to smoke his cigar imperturbably even while the coach was going over."

The Cumberland Road became a great freight line from the East to the Ohio River. Thousands of Conestoga wagons that could each carry twenty thousand pounds of freight, passed over it in each direction.



A CONESTOGA WAGON

These wagons took their name from their early association with the village of Conestoga, not far from Lancaster, in southeastern Pennsylvania. Both ends of these wagons were a foot higher than the middle. The curve helped to prevent things from sliding out when taken up or down hill. The canvas tops also were higher at each end. The early Conestoga wagons had the upper part painted red and the lower part, blue. These ships of the land were a fine sight as they wound their way over the hills. Families going to the West slept in these wagons and carried their household goods in them.

The Cumberland Road was afterward known as the National Road, because the nation built it. It was continued from Wheeling across the Ohio River, through Columbus, Ohio, and Indianapolis, Indiana, and beyond to the middle of Illinois. It was then possible to go by stagecoach all the way from New York to Indiana in about two weeks.

The Experience of Charles Dickens

Only a few roads were as good as the Cumberland Road. Charles Dickens, the great English novelist, visited America (1842) shortly before the middle of the nineteenth century. He tells of his ride on a stagecoach in Virginia. He sat on the seat beside the negro driver and admired the man's skill in driving



DICKENS'S RIDE ON THE STAGECOACH

a four-horse team. The road was one deep mudhole after another.

Dickens tells how the stagecoach at one spot sank in the mire nearly to the seats, how it came to a hill so steep that the driver fell over backward among the luggage on the roof, how the coach rolled back against the one behind. The driver with his eyes almost starting out of his head recovered himself and called to his four horses: "Lee den! Lee deere! Hi Jiddy, Jiddy! Pill! Ally Loo! Lee-e-e-e-e!" The four

horses understood that when he said "Lee!" they must use all their strength, and they used it. After a desperate struggle, they pulled the coach up the hill and ran down the opposite side into a deep hollow full of water. Dickens says: "The coach rolls frightfully. The insides scream. The mud and water fly about us. The black driver dances like a madman. Suddenly we are all right by some extraordinary means, and stop to breathe. And so we do the ten miles in two hours and a half."

A New Power on the Water

Every river deep enough for boats was a water road, although where the current was very swift, it might be only a one-way road. Rowing is hard work, so hard that it has almost gone out of fashion. Sailing is difficult on narrow rivers unless the wind blows from behind the boat. No new ways of moving a boat had been found from the times of the Bible to late in the eighteenth century.

One day a man standing on the bank of the Ohio River saw five men in a boat with side paddle wheels pass with what seemed to him "prodigious swiftness" (1796). He could not see the eight horses under the deck, working a treadmill that turned the wheels. Could any power be found that would take the place of those horses?

The Steamboat

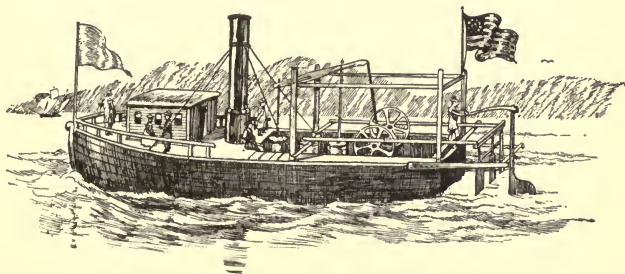
It was a Scotchman, James Watt, who invented the steam engine, but Americans showed how to use it to move boats. We should know the names of two men who gave the steamboat to the world.

First comes John Fitch (1743-1798), to whom President Washington granted the first patent for a steamboat (1791). Fitch was born near Hartford, Connecticut, in a family which expected every boy to be educated. At the age of four he was taught to spell "commandment" and "Jerusalem." Before he was ten, he worked the problem to find how many minutes old he would be on his tenth birthday.

Fitch served in the Revolutionary War. He was at Valley Forge during the terrible winter. His skill with tools led to his selection to make and repair firearms for the soldiers. After the Revolution, he lived for some time in Pennsylvania, where he turned his attention to inventing a steamboat.

The inventors of the steamboat began by studying how things were moved in water. They watched the fins of fish, the webbed foot of the duck, the way the Indian paddled his canoe. One inventor made his model like a duck's foot. Another used paddles. Fitch tried paddles at the sides of one boat and at the stern of another. Some of the framers of the Con-

stitution of the United States saw Fitch's first steamboat make trips from Philadelphia to Burlington, New Jersey, on the Delaware River (1788).



JOHN FITCH'S STEAMBOAT WITH PADDLES AT THE STERN
The first steamboat to carry passengers.

In 1790 Fitch ran an improved steamboat between Philadelphia and Trenton, New Jersey. In that year the world's first time-table of a steamboat was published in a Philadelphia newspaper. Fitch's steamboat ran more than a thousand miles that year without an accident. In 1791 the king of France, as well as President Washington, gave Fitch a patent for his steamboat.

Fitch's invention came before the world was ready for it. His steamboats did not pay. He died a poor and disappointed man at Bardstown, Kentucky.

It was not until the twentieth century that President Washington's signature was found, granting the first steamboat patent to John Fitch. The Congress of the United States has tried to make amends for the neglect

of this great inventor. It ordered a monument erected to him at Bardstown. The inscription there closes with the sentence :

“ He reaped neither profit nor glory from his inventions which contributed toward the revolution of navigation.”

Robert Fulton

Fulton came later, when the world was eager for the steamboat. He improved it and made it a practical success.

Robert Fulton (1765-1815) was born in the Conestoga region of Pennsylvania, the place that gave its name to the Conestoga wagon. When he was a boy, he put paddles on the side of his boat and turned them with a crank when searching for fish in Conestoga Creek.

He went to London to study art. While painting a nobleman's portrait, he became acquainted with the Duke of Bridgewater, who constructed a famous canal in England. Fulton studied canals in England and became interested in travel by water.

Fulton next went to France and studied diving boats and torpedoes. He thought that inventions in this field would make war so terrible that it would have to be given up. He tried to improve the torpedo and the diving boat. France, then at war with Great Britain,

would have paid him a large sum if he had been successful in blowing up British ships, but he did not destroy any. A few years later the British gave him



ROBERT FULTON

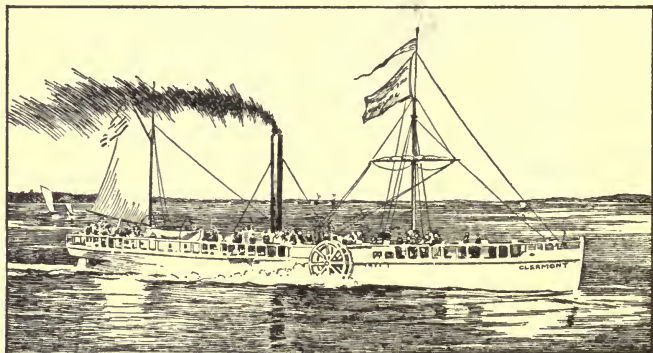
From a portrait painted by himself.

a chance to use torpedoes on the French fleet. Again he failed after a trial.

Fulton returned to America and built a steamboat, named the *Cler'mont*, about one hundred feet long. She had side paddle wheels and the best steam engine that he could bring from England. The *Clermont* was ready for her first trip on August 17, 1807. She made

the distance of one hundred fifty miles up the Hudson River, from New York to Albany, in thirty-two hours. Her speed was about five miles an hour. The average time for a sailing vessel to reach Albany was four days. The captain of the *Clermont* told his wife that he would take her to Albany on a boat driven by a teakettle. He kept his word by using the same kind of steam that rushes from the spout of a teakettle.

The *Clermont* had a high smokestack and burned pine wood. She left a long trail of black smoke, in which sparks could be seen at night. Some who saw her on the night of her first trip thought she was a sign of the



THE *CLERMONT*

Judgment Day. Others took to their heels to escape the sea monster that was lashing the water in its rage, as it breathed smoke and fire.

Fulton was the first one to make a steamboat profit-

able. Traveling was increasing. There were now enough people in the country to make good steamboats pay, and Fulton knew how to build good ones. The *Clermont* came to stay. Her successors have been running ever since. Steamboats were soon used on Long Island Sound. In 1811 the first steamboat on the Ohio River ran from Pittsburgh to New Orleans. Passengers on the Cumberland Road stagecoaches often left the road at Wheeling for the steamer if they were going farther west. Steamboats soon appeared on all the navigable rivers; some even pushed their way up the Missouri River. In 1819 the steamship *Savannah* crossed the Atlantic, but she was assisted by her sails.

The steamboat made it possible for people who lived near rivers to travel more quickly and market their crops more easily. The steamboat helped to develop the country along its waterways.

Canals

The most nearly level route from New York city to the West is by way of the Hudson River to Albany, then up the Mohawk River and across country. There is no river flowing from Lake Erie to Albany. Governor De Witt Clinton of New York had the imagination to ask: "Why not put a river there?" He dug with his own hands (July 4, 1817) the first spadeful of earth

for that artificial river which is known as the Erie Canal. It was finished in 1825.

After leaving Lake Erie, this canal runs about three hundred fifty miles east and enters the Hudson River a little north of Albany. The Erie Canal does not



THE ERIE CANAL

cross any high land. Another canal, from eastern Pennsylvania to the Ohio River at Pittsburgh, had to be built in two sections, each ending at the Allegheny (ăl'ĕ-gā-nĭ) Mountains. Passengers were taken over the mountains by railway, up and down steep grades. Freight canal boats, which were small, were carried (after 1834) in cars over the mountains. From Pittsburgh they went without change down the Ohio River to the Mississippi River and then up to St. Louis.

Passengers on the Erie Canal could go from New York to Buffalo without leaving the boats. They slept and ate on them. The boats, some of them seventy or eighty feet long, were drawn by horses at an average speed of four miles an hour.

Tens of thousands of settlers went west over the

Erie Canal. Many stopped in western New York. More went by steamer from Buffalo to Ohio, Indiana, and Michigan. Rochester and other cities and towns in western New York sprang up along the canal. Cleveland and Detroit also owed much of their growth to the canal. In one day 2400 people looking for homes came to Detroit from New York and New England, by way of the Erie Canal and lake steamers.



A CANAL BOAT

The Erie Canal helped to make New York city the greatest seaport in the East. Before the building of the canal, it cost \$100 a ton to ship freight from Buffalo to New York. The canal took it for \$15 a ton, and afterward lowered that rate. The freight taken on the boats was of various kinds. One boat carried \$100,000 worth of furs. † Another had on board one thousand

live turkeys, ducks, and geese. Most of the eastbound freight was the produce of the farm, such as corn, wheat, oats, potatoes, hogs, cattle, and sheep. The western forests furnished millions of feet of lumber for the buildings in the East.

A canal was built through Ohio from Lake Erie to the Ohio River. The grain and hogs raised in the Ohio Valley could then be taken over this new canal to Lake Erie. They could remain in the same boats while they passed through the Erie Canal and down the Hudson River to swell the markets of New York.

Many of the other states east of the Mississippi River built canals. There were more than 4400 miles of these canals. They served their purpose for a short while as nothing else could have done. Then the railroads came and took away most of their traffic. The Erie Canal is one of the few still used. The railroads provided quicker transportation and could be used all the year, while the northern canals were blocked by ice in the winter.

Early Railroads ; Horse or Locomotive ?

The history of the greater part of the last century is the story of giving up old ways of doing things for new. Wherever they could, many people gave up the stage-coach for the steamboat and canals. Then they left the canals for the railroad. Most people are in a hurry,

and they preferred the railroads because travel on them is much faster.

The practical steam locomotive for railroads was invented in England by George Stephenson (ste'venson). At the end of the first quarter of the nineteenth century, one of his locomotives was hauling passenger trains on an English railway (1825).

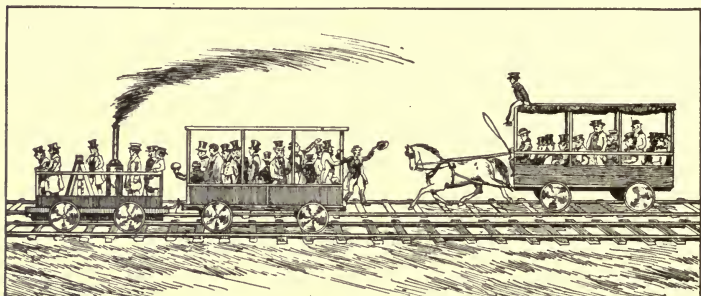
It may surprise you to know that the cars on the first railroads in the United States were drawn by horses. Even after the coming of the locomotive a popular subject for debate was: *Resolved*, that the horse is better than the locomotive for drawing cars. The horse won in most of the early debates.

The affirmative side of the debate claimed that the horse should win on his merits, which were these: The horse gave forth no sparks. He burned no haystacks, barns, fences, or forests. He carried his own fuel. He did not make noise enough to frighten anything. The horse never blew up, like the locomotive. The horse could also go as fast as was safe, sometimes faster. Locomotives would hurt the market for horses. These arguments seem amusing now. But history shows that people often object to new inventions.

Beginning of the Modern Railroads

Charles Carroll, the last living signer of the Declaration of Independence, laid the first stone for the

Baltimore and Ohio Railroad on July 4, 1828. He said that this act was next in importance to signing that Declaration. This railroad at first used horses to



RACE BETWEEN THE LOCOMOTIVE "TOM THUMB" AND A HORSE

draw its cars. Two parallel tracks were built for thirteen miles. There was a race over these tracks to see whether a horse or a locomotive was the faster. At first the horse drew ahead. Then it was neck and neck. Then the locomotive passed the horse. Suddenly something went wrong with the machinery on the locomotive, and before it could be mended the horse won.

On some cars a horse was put in a treadmill to move the car. Sails were also used when there was a fair wind. A strong wind could take a loaded car along at a speed of fourteen miles an hour. When the wind died down, the car stopped.

The Baltimore and Ohio Railroad began to use steam in 1830. The locomotive was soon generally adopted,

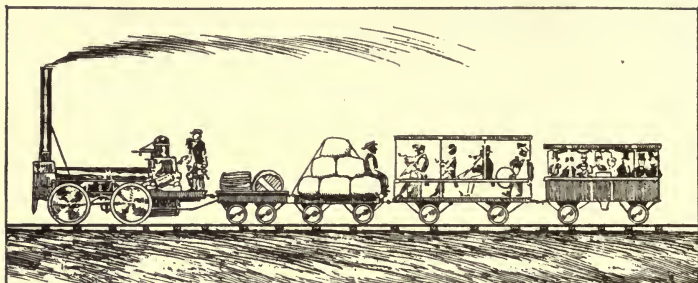
but it had its accidents. South Carolina built a railroad (1827) from Charleston toward Hamburg on the Savannah River. This road was made for locomotives at the start. An American locomotive, named the "Best Friend," ran on it (1831), but this good name did not make it safe for the negro fireman. The hiss of the escaping steam worried him, so he sat down



A CAR PROPELLED BY SAIL

A sailing car was tried on the Charleston and Hamburg Road. When the wind was brisk, the car could carry fifteen passengers at a speed of twelve miles an hour.

on the safety valve and stopped the noise. He never knew exactly what happened. The boiler burst with a terrible explosion.



THE LOCOMOTIVE "WEST POINT"

Redrawn from a contemporary lithograph. Note the car with cotton bales, to protect the passenger car in case of an explosion; and next it another with a brass band.

After this accident, passengers were naturally worried. To relieve their fears, the managers of the road placed two cars between the locomotive and the passenger cars. The first car was piled high with cotton bales as a barricade. The second carried a negro brass band, playing lively airs to take the attention of the passengers away from the locomotive.

The Albany and Mohawk Railroad (1831), from Albany to Schenectady (skě-něk'tā-dī), New York, was the first of a series of separate railroads that were later (1853) combined into the New York Central Railroad. The Baltimore and Ohio Railroad pushed on to the Ohio River. South Carolina completed its one hundred thirty-five miles of railroad from Charleston to Hamburg. It soon left off its barricade of cotton bales and its negro brass band.

An Invention That Gave the Railroads More to Carry

The growth of our railroads would have been very slow if the farms had not soon come to their rescue and given them more to carry. We should know the importance of the farm in our history. The farm trained many of our early patriots. Most of the soldiers in the Revolution were farmers. There was then and there is now no more honorable business than tilling the soil. Many of our greatest men, such as George Washington and Thomas Jefferson, were farmers. Farming is also our most necessary industry because men must be fed before they can work.

For thousands of years human hands had used a sickle or a scythe to reap wheat. Ears of ripe corn may remain a long time on the stalk without damage, but wheat needs to be cut quickly when ripe, or the grain shells out and is lost. One farmer could cut and bind only an acre a day. Ten acres of wheat were too much for one man to raise.

We have seen (pp. 124-125) what Eli Whitney did for the cotton grower. Cyrus H. McCormick (1809-1884), a farmer living in Virginia, tried to do as much for the wheat farmer. He was the most famous of a group that worked on a machine to cut wheat. He had made a sort of reaper soon after the railroad came. He lost all that he had while he was trying to perfect

his invention, but he stuck to his task until he made his reaper a practical success.

One day he went west and saw the rich black soil of the level prairies. The farmers had not been able to hire laborers to cut all their wheat. They turned cattle and hogs into their wheat fields to eat what they could.

McCormick realized that the small hilly farms where he lived in Virginia had not been well suited to his



Brown Bros.

MODERN REAPERS IN A WESTERN WHEAT FIELD

Forty feet of grain are cut at a time.

reaper. He saw that the prairies would give him a chance to serve the world by making bread cheaper.

He improved his reaper so that the prairies could not grow more wheat than his machines could cut. Railroads were built into the new wheat country, and they carried to market whole trains loaded with wheat. Before the end of the nineteenth century, farmers could say that the time of human labor for raising a bushel of wheat had been reduced from three hours to ten

minutes. McCormick's dream had come true. His reapers were helping to feed the world. They are used to-day by all nations.

How the Railroad Helped to Develop the Country

The railroad made it easy to settle the interior of the United States. It took the products of the farm and factory to market. It brought both necessary things and luxuries to homes far away. It made life more worth while by bringing papers, magazines, and books more cheaply and quickly by mail. It gave people a chance to be educated by travel. The railroad changed American life and history. It took Lewis and Clark eleven months to reach the Pacific, but we can now go in less than three days by railroad from where they started.

THINGS TO DO

Trace the Erie Canal on a map. Write a letter telling of your imaginary trip on a canal boat from the Hudson River to Buffalo.

Prove this statement: The Erie Canal helped New York to become the greatest commercial port in the East.

Tell the story of the coming of the steamboat.

Make a list at home of the things that you could not have if the ways of travel had not changed since George Washington's time.

How did McCormick's reaper help to extend the railroads and feed the world?

SOME BOOKS THAT WILL HELP YOU

Nida, W. L., *Following the Frontier*, 155-190 (Travel by steamboat and canal); Chapter XXVIII (Early railroads).

Bachman, F., *Great Inventors and Their Inventions*, 29-30 (Fitch); 32-49 (Fulton).

Coe, F. M., *Makers of the Nation*, 225-232 (Fulton).

Perry, F. M., *Four American Inventors* (Fulton).

Wildman, E., *The Builders of America*, 81-97 (DeWitt Clinton, the builder of the Erie Canal).

Darrow, F. L., *Thinkers and Doers*, Chap. XI (McCormick).

REFERENCES FOR TEACHERS. — Channing, E., *History of the United States*, Vol. V, 1-27 (Cumberland Road, canals, and early railroads which ran "when the weather is fair"); Kaempfert, W., *A Popular History of American Invention*, Vol. I, 1-67 (Development of the railroad, good pictures); Hulbert, A. B., *The Paths of Inland Commerce (Chronicles of America)*; Harlow, A. F., *Old Towpaths (Canals)*; Earle, A. M., *Stage Coach and Tavern Days*.



ELIZABETHTOWN STAGE WAGON

A stage that ran from Elizabethtown, near Lancaster, to Philadelphia.



COVERED WAGONS CROSSING THE WESTERN PLAINS

CHAPTER X

OUR COUNTRY GROWS LARGER

IMPROVEMENT in travel and carrying things was a step toward the further growth of our country. Spain's weakness also helped our growth. This chapter will tell us about some men who aided in taking our flag to the Southwest and the far West.

The different Spanish colonies in South America separated from Spain and became independent about the time when we bought Florida. So, too, did Mexico and Central America. Texas was part of Mexico for some time after Mexico had freed herself from Spanish rule. After a while, Texas declared her independence of Mexico. Texas had been settled largely by citizens of the United States, who were willing to fight to become independent when Mexico tried to subdue them.

David Crockett

David Crock'ett (1786-1836) was born in eastern Tennessee on the frontier. At the age of fifteen he did



DAVID CROCKETT

From an old print.

not know the letters of the alphabet. He did know the habits of the wild animals, and he became a skillful hunter. He liked to hunt bears, and he sometimes lived on their meat during the entire winter. He had a record of killing seventeen bears in one week.

Crockett was elected to the legislature of Tennessee because he could shoot better and tell better stories than the man who ran against him. He made so much

fun and could tell stories so well that people crowded to see him wherever he went. He was sent to Washington for two terms as a member of Congress.



THE BATTLE OF THE ALAMO

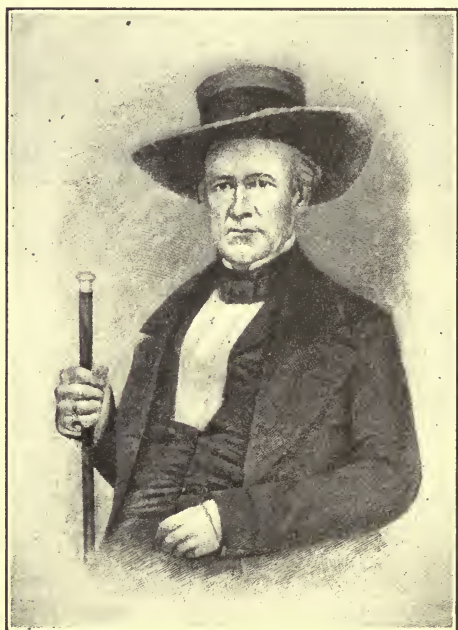
The Texans held the Alamo for nearly two weeks.

David Crockett is best known for the last act of his life in fighting for freedom. He went to Texas and volunteered to help defend the Alamo (ä'lä-mō) against an army of Mexicans. The Alamo was a Spanish church with very thick walls. One hundred fifty Americans defended the Alamo while a large Mexican army stormed it. The losses were heavy on both sides. When the Mexicans burst in, Crockett was one of the six Americans still alive. The Mexicans gave the six no chance for their lives, but killed every

one. The war cry of Texas became: "Remember the Alamo!" Those who visit Texas to-day will find the Alamo kept as a national monument in the city of San Anto'nio.

Sam Houston

Sam Houston (hūs'tun) (1793-1863), whose ancestors were Scotch-Irish, was born in Virginia. He went to Tennessee at the age of thirteen. Like other boys, he liked to play Indian. More than that, he



GENERAL SAM HOUSTON

actually went to live with the Cherokee Indians and was adopted by a chief. When his brothers came to get him to sell goods in a little store, he said: "I would rather measure deer tracks than tape." He stayed with the Cherokees for nearly three years and lived like an Indian until he was eighteen.

In his twentieth year he entered the army of the United States under General Andrew Jackson. Houston fought like a hero in storming the Indian fort at the battle of Horseshoe Bend (p. 155). He was so terribly wounded there that his wound did not heal to the day of his death.

Tennessee honored Houston by electing him a member of Congress and afterward governor of the state. He then went to Texas, where he was chosen a member of the convention that declared Texas independent of Mexico. He was also made commander in chief of the Texan army and elected the first president of the republic of Texas.

After the fall of the Alamo, Houston retreated with his small force until the scattered volunteers could join him where the San Jacinto (ja-sin'tō) River flows into an arm of Gal'veston Bay. He encamped here in a forest of live oaks with the San Jacinto River behind him. The Mexican general Santa Anna, who had been pursuing the Texan army, took a position in front of Houston and threw up breastworks for his army. He

had a much larger force than Houston's. When the breastworks were finished, Santa Anna took a *siesta* (sĭ-ēs'tà), or nap.

Suddenly Houston advanced at the head of his men, most of whom were Americans, shouting the battle cry: "Remember the Alamo!" A musket ball shattered his ankle so that fifteen splinters of bone had to be removed from it. But Houston kept on his horse and directed the entire battle. So fast was the onrush of his men that they took the breastworks with little loss, and nearly all of the Mexicans were killed, wounded, or captured. The battle lasted only twenty minutes. Some American soldiers found Santa Anna crawling away in the grass and brought him to Houston, saying: "Remember the Alamo!" But Houston had too noble a nature to kill his enemy in cold blood. Santa Anna was kept prisoner for a while and later allowed to return to Mexico. This battle of San Jacinto (1836) brought independence to Texas.

For nine years Texas was an independent republic. It was called the Lone Star Republic because it had only one star in its flag. It became one of the United States in 1845. Houston was then elected to the national Senate.

Texas added a very large area to the United States, but its boundaries were in dispute. War with Mexico (1846) followed.

Rivals for California

The land west of the Rocky Mountains which had belonged to Spain was now owned by Mexico. Mexico was not strong enough to keep Texas. Could she hold California? Three nations — the United States, Great Britain, and Russia — were interested in that question. Russia then held Alaska, as the north-western part of North America was called. Russia would have liked to extend her territory south to a warmer region. Great Britain then had fur hunters and trading companies in the Oregon country. She also wished California. The United States, like Great Britain, had a claim to the Oregon country, and some Americans had gone into California.

The problem was, Who would get California? This problem did not solve itself. There were many who worked on it. Let us now meet two men who aided in finding the answer. One is Christopher Carson, an independent hunter, trapper, scout, and Indian fighter. The other is John C. Frémont (frĕ-mōnt'), an explorer and surveyor employed by the United States.

Christopher Carson

Christopher Carson (1809-1868), usually called "Kit" Carson, was born in Kentucky and taken to Missouri while a baby. He was apprenticed to a

harness maker when he was fifteen years old. This was too tame work for him, and he ran away.

Kit went with a company of traders nearly eight hundred miles southwest to the Spanish settlement of Santa Fe (fā). After five years spent in various parts



KIT CARSON

He is wearing the usual frontiersman's cap of fur.

of the West, he became a leader among hunters, trappers, and guides.

Carson learned the ways of the Indians. One night, as he was lying in camp after a buffalo hunt, he saw some big wolves prowling around in the dark. He watched them carefully because he thought they might be Indians. He was satisfied that they were wolves when they snapped their jaws at a dog. He then went to sleep. He was awakened by musket fire

which killed a man near him. The wolves were Indians in disguise attacking the camp. The noise like snapping of jaws had been made with two buffalo bones. This was the last time that he was deceived by Indians.

Once Carson and five other trappers were attacked in Colorado by two hundred Indians. They needed at once something to protect them from the arrows of the Indians. Life in the West taught men to think quickly. They at once killed their mules and got behind them as a hail of arrows struck the dead animals. Three of the trappers fired at a time to hold the Indians back, while the other three reloaded. The fight lasted most of the day in the blazing sun, until forty-two Indians were killed. The white men then had to walk and run all night to the mountains to find water.

Kit Carson learned much geography while trapping beavers. He searched for them in streams, ponds, and rivers, as far north as Oregon and west into California. He went through the chief mountain passes where railroads now run. He carried a map of much of the West in his head.

He was very successful in finding beavers. He and his fellow trappers often found where the beavers had dammed up a stream and formed a large shallow pond in which they made their homes. More than a thousand beavers were taken from one pond.

Every fashionable person in America and in Europe wanted a tall hat made of beaver fur. Suddenly silk began to be used for hats in place of beaver (1834).



A BEAVER AT WORK

Beavers, working together, build dams of stones, mud, and branches and trunks of trees to make ponds deep enough to keep from freezing to the bottom in winter.

The fur was no longer in great demand. But by that time Carson had learned enough to serve as a guide in many parts of the West.

John C. Frémont

John C. Frémont (1813-1890) was born in Savannah, Georgia. He was well educated and became an engineer. He married the daughter of United States Senator Thomas H. Benton of Missouri. This senator was eager for the exploration and settlement of the West. His influence caused the Congress of the United States to send Frémont to explore ways to the West.

In 1842 Frémont went over the route called the Oregon Trail, from near the site of Kansas City, Missouri, to South Pass in the Rocky Mountains. Kit Carson was his guide. They had well-armed men on horseback to protect them. Frémont was the first man on this trail to carry instruments for telling the latitude and longitude. This trail led north through what are now Kansas and Nebraska to the Platte River, and then up that river to South Pass in the western part of what is now Wyoming. Frémont took the latitude and longitude of South Pass so that finding it would not in the future be guesswork. He was the first to climb a high peak, since called Frémont Peak as a lasting monument to him. He notes in his journal his surprise to find a bumblebee there, a thousand feet above the snow line.

The next spring (1843) Frémont and his party, with Carson as guide, set out again for the West on a longer journey of exploration. They visited Great Salt Lake, then turned north to learn something of Oregon. They got supplies at a British fur-trading station in Oregon. On their way south they were surprised to find lofty mountains — the Sierra Nevada — between them and California. Frémont and his men started across those mountains in the dead of winter, although the Indians warned him that they would all be lost. They said it was “six sleeps” over them even in summer.

Frémont and his party were more than a month in crossing. Horses slipped over cliffs, and men went crazy with the cold. They reached the other side the first week in March and found themselves in California, in a land of grass and flowers.

Congress wished Frémont to write for his *Report* all that he could learn about the little-known land of California. He was almost sure that war was coming with Mexico. He was very glad to tell enough about California to make the United States want it.

Trappers and fur traders had already crossed into California. What they said and thought was not known to large numbers. What Frémont wrote was widely read. Congress published twenty thousand copies of the *Report* of his first two expeditions.

Frémont traveled hundreds of miles and wrote of California's "extremely fertile soil," large crops of wheat, endless fields of spring flowers, its purple and orange hills, "the rich red orange of the poppy, mingled with fields of purple." His story of fragrant, blue-flowering lupines, "forming a grand bouquet, about ninety feet in circumference," still holds the world's record for bouquets. He gave the poetic name of the "Golden Gate" to the entrance of San Francisco Bay. His pen helped to give us California. Since he wrote of it, more and more people have gone there.

California Becomes Ours

The next year (1845) Frémont went to California again on a surveying expedition. Congress gave him an escort of sixty white men and twelve Delaware Indians, all fine rifle shots. Kit Carson was with him again as guide.

Some American settlers formed the Bear Flag Party and called California a republic. Frémont joined them. They painted on a white cloth a star, a bear, and the words "California Republic." They then hoisted that flag on a Mexican flagstaff (June 14, 1846). Frémont did not then know that the United States and Mexico had been at war more than six weeks. He was willing to take the risk of helping California to become free from Mexico.

American and British war vessels were racing toward California. Commodore Sloat of the American navy sailed into Monterey (mŏn-tě-rā') Bay and raised the Stars and Stripes in Monterey, July 7, 1846. The British ships came soon after.

Commodore Sloat sent for Frémont to come to Monterey and show himself to the British. They were greatly impressed when Frémont entered Monterey at the head of his men. A British officer wrote: "A vast cloud of dust appeared first and thence in long file emerged the wildest wild party. Frémont rode ahead,



FRÉMONT ENTERING MONTEREY AT THE HEAD OF HIS TROOPS

a spare, active-looking man, with such an eye! After him came the Delaware Indians who were his body-guard. The rest rode two and two, the rifle held by one hand across the pommel of the saddle."

In the race for California, the United States was first on land and sea. The British admiral said: "The Yankees were two weeks ahead of us in taking California." He sailed quietly away, leaving the Americans in possession. There was some trouble with the Mexicans before our conquest was complete. General Stephen Kearny (kär'nĭ) came with United States soldiers and subdued them. Frémont made the mistake of taking orders from the navy instead of from the army and he was dismissed from the service. The President of the United States ordered that he should be given his

place again in the army. Frémont, however, refused to go back to the army, because his feelings were too much hurt by his dismissal after all that he had suffered and risked to get California. He afterward became one of the first national senators from California.

The Annexation of Oregon

Lewis and Clark (p. 144) asked Indian chiefs in the Oregon country to bear witness to the fact that they (1) had explored for the United States the lands along the Columbia River and (2) had built a fort there and occupied it for more than four months. They wrote a statement setting forth these facts and nailed it on the fort.

Lewis and Clark also gave to the chiefs copies of this statement. One chief handed it to a ship captain, sailing for China. The captain delivered it in the United States in 1807. If all the Lewis and Clark party had been killed as they returned, this letter would have proved the truth of their claim.

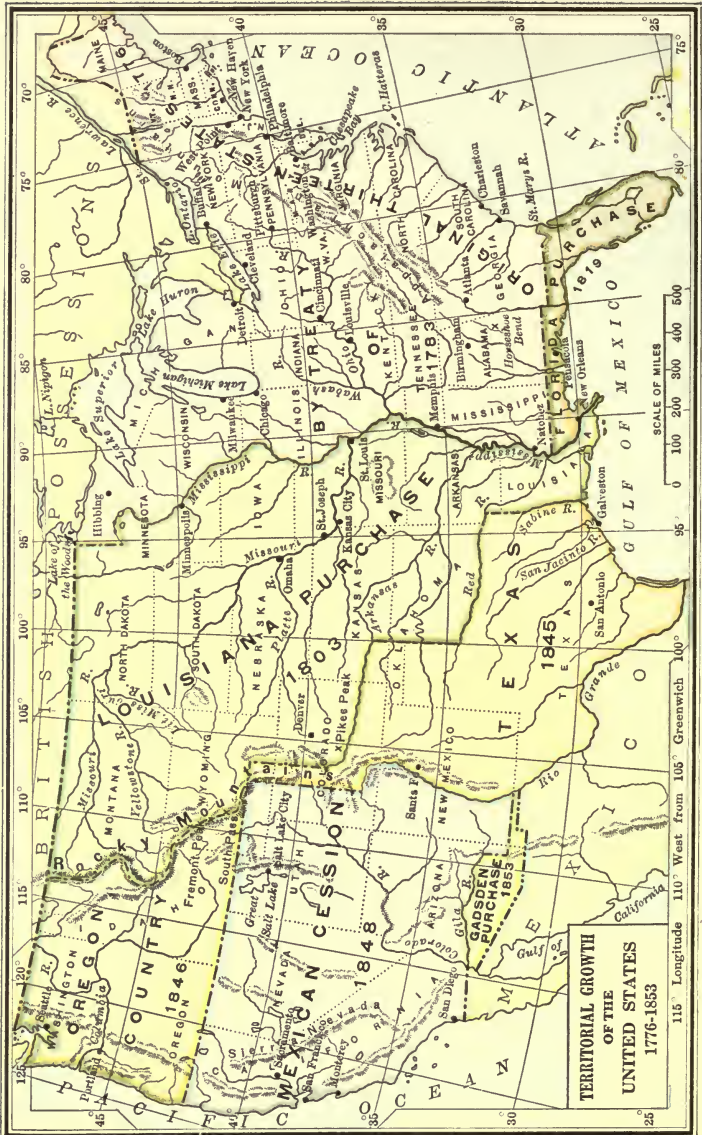
The United States had other claims to the Oregon country. The Columbia River was named after the *Columbia*, an American ship that first sailed into the mouth of that stream (1792). An American had built a fur-trading post at the mouth of the Columbia in 1811. More American than British settlers had come into the Oregon country.

The Oregon country at first included all the land between Alaska and California. In 1846 this land was divided between the United States and Great Britain. Our northern boundary east of the Rocky Mountains was the forty-ninth parallel of latitude. We accepted the British offer of the same parallel for the northern boundary of our part of the Oregon country. The states of Oregon, Washington, Idaho, and parts of Montana and Wyoming have been formed from this land.

The Mexican Cessions of Territory

The treaty of peace (1848) after the war with Mexico gave California to the United States, — not only California, but nearly all the territory belonging to Mexico west of our Louisiana Purchase to the Pacific Ocean. We gave to Mexico for this land \$15,000,000 — the same sum that we had paid France for the larger Louisiana Purchase (p. 143). We also paid Mexico \$10,000,000 a little later for a small addition to the southern boundaries of what are now Arizona and New Mexico. Mexico had already agreed that the Rio Grande should be the southern boundary of Texas. The southern boundary of the United States thus became what it is to-day.

The United States now owned for the first time all the territory between the Mississippi River and the Pacific Ocean. This was a wonderful expansion in



fifty years. Look at the map facing this page and see how much more than half the area of our country is west of the Mississippi River. This growth is one of the most wonderful events in our history.

The Discovery of Gold in California

John A. Sutter, a pioneer of Swiss parentage, was given by the Mexican government a large grant of open land in California. He built a fort there, called Sutter's Fort, the first building in what is now the city of Sacramen'to. He sometimes had as much as a thousand acres in wheat. He needed a sawmill and water to run it to make boards for his buildings and fences.

He sent a man about forty-five miles northeast, to the foothills of the Sierra Nevada. He found there good pine trees for boards and timber. A stream to run the mill was near. The sawmill that was built there was called Sutter's Mill, and it became famous in American history.

It was necessary to deepen the channel running from the stream to the mill in order to get enough flow of water. At night a current of water was turned into this channel to make it deeper. In the morning some yellow flakes were found which proved to be gold. This happened in January, 1848. Sutter tried to keep the discovery secret, but the news soon spread.

When nuggets of gold from Sutter's Mill reached San Francisco, men bade good-by to their homes and business. The printers left the newspapers with no one to set the type. The crews of vessels anchored in



SUTTER'S MILL

Redrawn from an old print.

San Francisco Bay deserted them. Farm hands left their crops and animals to take care of themselves. All rushed to the place where gold was found.

The Forty-Niners

By 1849 the news was known in almost all parts of the world. Gold seekers came from China and Australia. France sold enough lottery tickets to send four thousand poor people to California.

Americans went to California in three ways. (1) Some took passage in ships that sailed around South America to San Francisco. (2) Others sailed to the Isthmus of Panama, crossed it, and took another vessel for San Francisco. (3) Still others crossed the continent in ox-carts or on the backs of mules, or walked. In 1849 there were no railroads west of Chicago.

The Americans who went to California to search for gold in 1849 were called "Forty-Niners." There were probably as many as a hundred thousand Forty-Niners who went to California by these three ways.

The Overland Trail

Perhaps as many as fifty thousand people started across the continent for California in the spring of 1849. The journey took about five months. It was necessary to cross the Sierra Nevada before a heavy snowfall came.

Most people going to California in this way followed the Oregon Trail from Missouri to the South Pass in the Rocky Mountains (page 195). They then crossed the northern part of what are now Utah and Nevada and passed over the Sierra Nevada into California. They usually went in companies large enough to resist Indian attack. A trader going east with buffalo skins said that in forty days he had met four thousand wagons loaded with people on their way to California.

Thousands died of cholera and other diseases on the way. In some places the trail was lined with graves. Many thought that they must be near California after they had passed through the Rocky Mountains and reached Salt Lake City, but the worst was yet to come when they passed through the desert beyond. The desert path was marked by skeletons of dead animals and articles that had to be thrown away.

The rush for gold taught new lessons in the geography of the United States to larger numbers of people than had ever studied the subject before. This journey showed the vastness of our country and hastened the settlement of the West.

The Land of Gold

When California was reached, men searched for gold along the forks of the American River, near Sutter's Mill, and to the north and south of it on other streams. The simplest way of finding gold was to fill a pan with river dirt, and then wash the soil away with water. The gold would be found at the bottom of the pan. Other and quicker ways were soon invented.

Some men found gold quickly in large amounts, from \$15,000 to \$30,000 worth in ten days. One man said that he made a dollar a minute during working time for five weeks. He followed the later methods of big business and hired fifty Indians to wash the gold

out of the dirt. The average amount made by all miners was \$8 a day.

Prices were very high in the gold fields. Flour was \$1.50 a pound; milk, \$1 a quart; wheat, \$40 a bushel; washing, \$8 a dozen; a tin pan, \$9; a shirt, \$40; good



WASHING GOLD IN WICKER BASKETS

White men and Indians are at work.

boots, \$100 a pair. If we paid in the money of to-day, we should have to double these amounts. A store-keeper made \$36,000 in ten weeks. This was more than a dollar-a-minute miner's profit.

The surface gold was nearly all gathered in a few years. Expensive machinery and water power were then needed. Miners could no longer live by working for themselves.

The greatest benefit to California came from her increase in population. She was made a state in 1850. Many had thought that people enough to make a state would not go to the Pacific region for three hundred years. California's fruit and other products of her soil soon came to be worth more than the gold found there.

THINGS TO DO

Explain why the war cry of Texas was: "Remember the Alamo!"

Imagine that you are a soldier at the battle of San Jacinto. Tell the story of the battle and why it was important.

Imagine that you are an Indian. Tell Frémont in sign language that it will take him six days to cross the Sierra Nevada and that he and his horses may slip over cliffs or freeze.

After the teacher has read to the class selections from some of the books listed on page 208, different groups of pupils may give simple one-act plays based on adventures in the lives of Carson and Frémont, on travel over the Oregon Trail, on the discovery of gold, and on the doings of the Forty-Niners.

Draw the Bear Flag of the California Republic.

Explain how California came to belong to the United States.

The states of Oregon, Washington, Idaho, and parts of Montana and Wyoming were formed from the Oregon Territory. Point out these states on a map. Tell how we got this territory.

On a map draw red lines around the different states gained by our country during the period covered by this chapter.

Tell the story of the Forty-Niners and how their coming affected California.

Chapters VII, VIII, IX, and X have told of inventors, patriots, and explorers who aided in our country's growth and progress since the Revolution. The events, etc. in the first column below are given in the order in which they occurred. Match each with the right name in the second column.

- | | |
|--|---------------------------------------|
| 1. Invention of the first steamboat | a. De Witt Clinton |
| 2. Invention of the cotton gin | b. Cyrus McCormick |
| 3. Purchase of Louisiana | c. David Crockett |
| 4. Exploration of the far Northwest | d. John Fitch |
| 5. Making of the <i>Clermont</i> | e. John C. Frémont |
| 6. General who helped get Florida | f. Eli Whitney |
| 7. Invention of the locomotive (English) | g. Sam Houston |
| 8. Making of the Erie Canal | h. George Stephenson |
| 9. Invention of the reaper | i. Meriwether Lewis and William Clark |
| 10. Battle of the Alamo | j. Robert Fulton |
| 11. General in chief of the Texas army | k. Thomas Jefferson |
| 12. Explorer who helped win California | l. Andrew Jackson |

SOME BOOKS THAT WILL HELP YOU

Evans, L. B., *America First*, 317-324 (Two stories of Texas); 390-394 (Discovery of gold and the Pony Express).

Perry and Beebe, *Four American Pioneers*, 135-194 (Crockett); 197-255 (Carson).

Corley, J., *Story of David Crockett*.

Bryan, G. S., *Sam Houston*.

Sabin, E. L., *With Sam Houston in Texas*.

Sabin, E. L., *With Carson and Frémont*.

Kingsley, N. F., *Four American Explorers*, 135-200 (Frémont).

Seymour, F. W., *Boys' Life of Frémont*.

Nida, W. L., *Following the Frontier*, 253-273 (Gold and the Forty-Niners).

Parkman, F., *Oregon Trail*.

REFERENCES FOR TEACHERS. — Williams, A. M., *Sam Houston and the War for Independence in Texas*; Creel, G., *Sam Houston, a Colossus in Buckskin*; Stephenson, N. W., *Texas and the Mexican War (Chronicles of America)*; Vestal, S., *Kit Carson, the Happy Warrior of the Old West*; Nevins, A., *Frémont*, 2 vols.; Bashford and Wagner, *A Man Unafraid* (Frémont); White, S. E., *The Forty-Niners (Chronicles of America)*, 55-139; Barstow, C. L., *The Westward Movement*, 88-198 (Good matter to tell children).



LINCOLN SPLITTING RAILS

CHAPTER XI

LEADERS IN THE CIVIL WAR

OUR country was harder to govern after it grew larger in the way told in the last chapter. The northern states were growing to dislike slavery more and more. The southern states thought slavery was necessary for raising their cotton.

For some time the northern states kept Texas from being made one of the United States. They feared that the slave states might become strong enough to control the Union.

Equal Numbers of Free and of Slave States

The North and the South both aimed to have an equal number of states. Since each state had an equal vote in the Senate of the United States, no law could

be passed if it did not please both sections of the country.

When the Forty-Niners (pp. 202-204) were going to California, there were fifteen northern and fifteen southern states. The South hoped that California would be divided into two states and that the southern half would be a slave state. But all California entered the Union as one free state (1850). This gave the North one state more than the South had.

Henry Clay Tries to Keep Peace between the Two Sections

Henry Clay (1777-1852), a statesman from Kentucky, was a great peacemaker. He often kept peace by getting each side to give up part of what it wanted. He now (1850) had the North and the South each give way to the other in some things. For instance, the South agreed that all California should be a free state. The North allowed the passage of a Fugitive Slave Law to make it easier for the South to catch slaves that had escaped to the North. Each side also gave way in some other matters. Clay thought that his "Compromise of 1850," as history calls it, would make it best for both sides to let the slavery question rest.

In spite of this compromise, the trouble over slavery grew worse. There was much disputing about slavery in the territories. Runaway slaves from the South

would often escape to the North and stir up the sympathy of people there. Northern people often kept the owners from recovering their slaves. Eleven years later (1861) the South determined to leave the Union and thus separate from the North.

Abraham Lincoln (1809-1865)

The man who became the leader of the North was Abraham Lincoln. His father, Thomas Lincoln, married (1806) Nancy Hanks, a bright, well-bred girl. The father could neither read nor write at the age of twenty-five. He bought on credit a farm three miles south of Hodgenville (hŏj'ĕn-vĭl), Kentucky. Here Abraham Lincoln was born in a little one-room log cabin (February 12, 1809). Thousands now go every



Brown Bros.

LINCOLN'S BIRTHPLACE

This cabin is now inclosed in a great memorial hall.

year along the Lincoln Highway to that birthplace and wonder how a man born in such a cabin could have grown up to become one of the great men in the history of the world.

Nancy Hanks Lincoln was Abraham's teacher until his tenth year. She was better educated than most of the women around her. She taught Abraham how to read well and write a good hand. He learned from her how to be patient and forgiving and to help others. "He gives everybody a lift," said the people in a small town when he chopped a widow's wood. When he saw animals suffering, he tried to help them, as the good fairies had done in the stories his mother had told him. One day he suddenly stopped, when hurrying home on horseback from a county court. He had seen some helpless young birds that the wind had blown from their nest. He climbed the tree and put them back.

His father soon moved from the boy's birthplace to a new home, and later he moved again, this time to Indiana. Here he built at first a little log house inclosed on only three sides. The fourth side was left open to get heat from a big log fire outside. This house was a poor shelter from the cold of a bitter winter.

Abraham's mother was not strong. One morning (1818) she called the boy, then in his tenth year, and told him that she had to go away, never to return.

She said: "Help your father and your sister. Live as I have taught you, and love God always." Then she closed her eyes for the last time.

It is not easy to see how Lincoln's mother could have been a better teacher if she had known that she was training a future President of the United States for his great task of freeing the slaves. Her pity for the slaves had made him dislike slavery before he knew that it was wrong. It was her teaching and example that made him wish to free the slaves. When he later understood what she had done for him, he said: "I owe all that I am or hope to be to my angel mother."

Abraham soon had a good stepmother. She said: "Abe was the best boy I ever saw or expect to see." No woman could have given Nancy Hanks Lincoln greater praise than this for the training of her son.

How Lincoln Trained Himself in Using English

Lincoln had less than one year's schooling. After his mother left him, he had to be his own schoolmaster. She had put him on the road to becoming a good speller. In spelling matches, the side that had Lincoln always won, because he was sure to be the last one left standing.

Lincoln became a good writer and a good speaker. We have seen that Benjamin Franklin thought that his own success in life was due to the pains that he took in making a writer of himself.

In order to become a good writer, Lincoln first read good books. The ones that he read and reread were the Bible, *Robinson Crusoe*, Bunyan's *Pilgrim's Progress*, *Æsop's Fables*, Weems's *Life of Washington*, and a *History of the United States* by an unknown author. He later borrowed other books wherever he could.

He used his spare time in reading. When he plowed, the horse needed to rest at the end of every long furrow. Lincoln then read from a book. He was away from home for a while at the age of eighteen, and he sat up until midnight to read the books in the house where he boarded.

He practiced writing the substance of what he had read. He strove for two things in his writing: to be clear and to be brief. Anything that was not clear worried him. He worked until he could make it clear. Paper was very scarce when Lincoln was young. He wrote mostly on the back of wooden shovels. After he had written the back full, he shaved it off and used it again.

Lack of space for writing caused him to practice saying as much as he could in a few words. An English university has used as a model his letter, containing one hundred thirty words, to a woman who had lost five sons in our Civil War. He acted on the old proverb: "The more you say, the less people remember." Practice in telling stories also taught him to be



LINCOLN STUDYING AT NIGHT

He often read by the light from the fireplace, when there were no candles in the house.

both clear and brief. *Æsop's Fables* showed him how to tell a story in a few words.

How He Earned Two Titles

Lincoln went to Illinois to live after he was twenty-one. The young men looked up to him because he was a very good wrestler and could lift six hundred pounds.

The man who thought he was the best wrestler in Illinois challenged Lincoln. When he found that Lincoln could not be thrown fairly, he tried a foul. Lincoln then held his opponent out at arm's length and shook him like a doll.

Lincoln was six feet, four inches tall. His legs were so long that it took him some time to figure how many fence rails he must split to buy cloth for a pair of trousers. He needed three and one half yards of homespun jean, dyed with white walnut bark, at four hundred rails per yard. He split the required number and so many more that he earned the title of "the Rail-splitter."

For a while he was a storekeeper. He and a partner bought a general store entirely on credit. Once he found that he had taken a sixpence too much from a buyer, and he walked three miles to return it. Another time he used a four-ounce instead of an eight-ounce weight in putting up a half pound of tea. When he noticed the mistake, he took the rest of the tea to the customer.

His store was in the village of New Salem, Illinois. The village was small and growing smaller. The store did not pay and finally "winked out," as Lincoln said. The village also soon winked out. Lincoln and his partner had signed a note for the purchase of the store. The partner paid nothing, so the whole debt fell on Lincoln. It seemed so large to him that he called it

the "national debt." Many debtors in those days left for parts unknown. Lincoln, who was often called "Honest Abe," paid up every cent, principal and interest, although it took him fifteen years.

It was in his young life in Illinois that Lincoln earned the two titles of "the Rail-splitter" and "Honest Abe." They were the humblest titles that a future President ever had.

How He Became Widely Known

Lincoln studied law and opened an office in Springfield, Illinois. A client said: "I have found a quirk in the law by which I can win six hundred dollars. I want you to take the case." Lincoln replied: "Some things legally right are not morally right. I shall not take your case. I advise you to make six hundred dollars in some other way." His honesty made him favorably known throughout his county.

Lincoln served eight years in the state legislature of Illinois. He was later elected a member of the national House of Representatives. He was now well-known in Illinois but not in other states. He needed to be known nationally before he could play his great part in American history. The chance finally came (1858) when he was a candidate for the United States Senate against Senator Stephen A. Douglas, one of the best-known senators of the time.

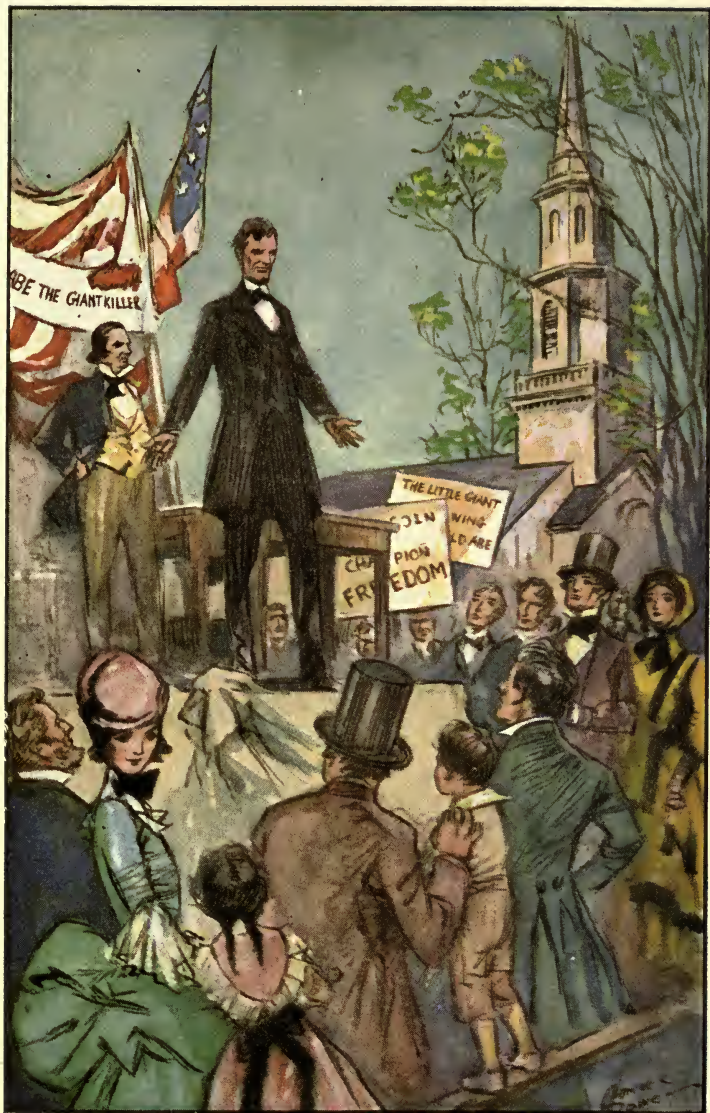
Slavery was then the most important problem in the nation. Douglas hoped to be President, and he tried to keep friendly with the South. Lincoln came out squarely against slavery. He and Douglas met in a series of debates in Illinois towns. These debates are known as the Lincoln-Douglas Debates. They made Lincoln known throughout the United States.

Lincoln planned his debates so skillfully that Douglas had to lose the friendship of the South in order to win the senatorship in Illinois. In 1860 Lincoln was chosen the Republican nominee for the presidency. Douglas became the northern Democratic nominee, but the South would not vote for him. Lincoln was elected President to take office in March, 1861.

The Civil War Begins

Men had different ideas about the power of the government of the United States. Daniel Webster (1782-1852), America's greatest orator, was a northern statesman. He believed that the separate states had formed a lasting Union, known as the United States. He thought no state had the right to withdraw from that Union. His greatest speech was made for an unbroken Union. He ended with these ringing words: "Liberty *and* Union, one and inseparable, now and forever."

John C. Calhoun (1782-1850) was a southern states-



LINCOLN IN A DEBATE WITH DOUGLAS

man, who believed that a state had the right to withdraw from the Union when it chose.

Lincoln agreed with Webster, and was also opposed to slavery. The South feared he would free the slaves if the slave-holding states stayed in the Union.

Seven of the slave states withdrew from the Union after Lincoln's election and before he took office as President; four more joined them later. They formed a separate union, called the Confederate States.

The eleven southern states that formed the Confederacy were South Carolina, Mississippi, Florida, Alabama, Georgia, Louisiana, Texas, Arkansas, Virginia, Tennessee, and North Carolina. Jefferson Davis was elected their President.

A bitter Civil War, lasting four years (1861-1865), was fought between the North and the South. The North said it was fighting to preserve the Union of states as Webster had urged in his great speech. The South declared that it was following Calhoun's teaching in fighting for the right of states to leave the Union.

Lincoln started in the Civil War at a disadvantage. The best-known members of his cabinet thought they were much better fitted to be President than a rail-splitter and country lawyer. His Secretary of State, William M. Seward of New York, had almost won the Republican nomination for President in place of Lincoln.



THE CONFEDERATE STATES

Soon after Lincoln became President, Seward said to him: "Mr. Lincoln, you are drifting around with no settled purpose. Let us start a foreign war. The South will join us in the ranks." Lincoln had common sense and also a sense of humor, but he was careful not to make fun of Seward's plan or to tell him bluntly that he thought it foolish. He rejected the plan, but he managed Seward and the others in such a kindly way that they became his friends and served him well.

Emancipation Proclamation and Gettysburg Address

Lincoln and the North fought first to bring the southern states back into the Union. He did not give to the world his Emancipation Proclamation until the

second year of the war. This Proclamation ordered that the slaves in states and in parts of states in rebellion on January 1, 1863, should thenceforth be forever free. This has been ranked among the twenty most important dates in American history because it showed that the purpose of the North was to abolish slavery. The wealthy people who governed Great Britain had aided the South by building for it vessels that destroyed northern ships. The English common people welcomed the Proclamation and would have driven out of office any governing body that continued to help the South.

The North won a great victory at Gettysburg, Pennsylvania, in July, 1863. There were three days of

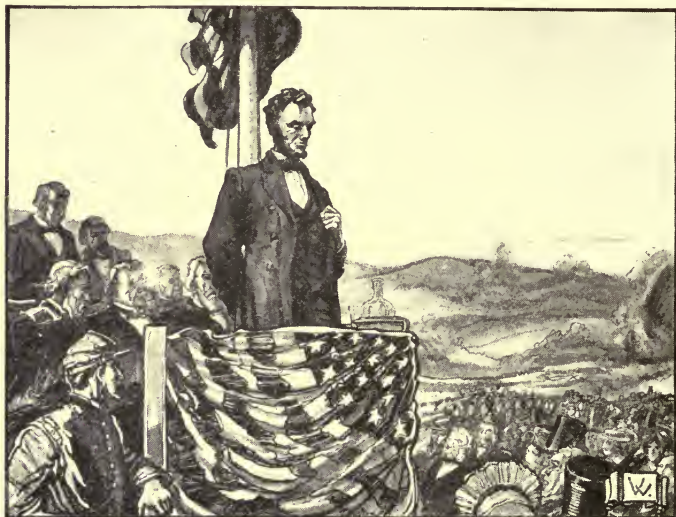


Brown Bros.

LINCOLN AND HIS CABINET

From the painting by F. B. Carpenter, now in the White House.

hard fighting. The Union army won on the third day. The slaughter on both sides was terrible. A part of the Gettysburg battlefield was set apart as a national cemetery. President Lincoln gave his *Gettysburg Address* at the dedication of this cemetery (November, 1863).



LINCOLN GIVING HIS GETTYSBURG ADDRESS

This address ranks among the three greatest American orations. Patrick Henry's "Liberty or Death" speech (p. 13) and Webster's speech for the Union known as *Reply to Hayne* (p. 218) are the other two. Lincoln's address has only two hundred sixty-nine words. It is the shortest of all our great orations.

Edward Everett, then thought to be the greatest

living American orator, made a long speech at the dedication. Not one of his sentences is now remembered. We have not yet forgotten Lincoln's closing words, expressing the hope that "government of the people, by the people, and for the people shall not perish from the earth."

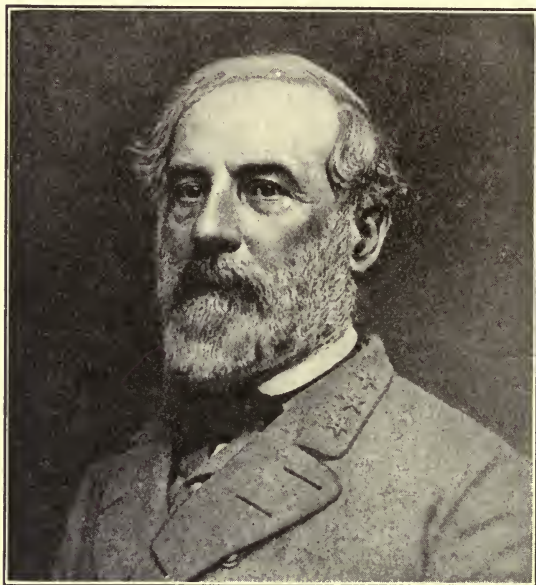
Lincoln was the guiding spirit of the Civil War. He had a more difficult task than any other President except Washington. For two years Lincoln tried in vain to find a successful general. The North had lost more men than the South. The lack of success of the northern generals made many dissatisfied with Lincoln. Such people asked what else could be expected of a rail-splitter. At the end of two years England and France thought the South would win.

A Great Southern General

General Robert E. Lee (1807-1870) was a Virginian who stood almost at the head of his class at the West Point Military Academy. He was fighting skillfully in Mexico when Frémont was helping to win California. Lee did well everything that he undertook. He did not use liquor or tobacco. He was a great man and a great general.

He was for a time in command of the Military Academy at West Point, and he made it as good as the best military schools in Europe. He knew the art of war.

He was a good man to have as commander in chief of an army. He could have commanded the Union armies



GENERAL ROBERT E. LEE

if he would have accepted the position. Lee disliked slavery and liked the Union, but he was born in Virginia. He wrote to his sister, the wife of an officer in the Union army: "With all my devotion to the Union, and the feeling of loyalty and duty of an American citizen, I have not been able to make up my mind to raise my hand against my relatives, my children, my home." When Virginia joined the Con-

federacy, Lee entered the southern army and later became its commander in chief.

Lincoln's hardest task was to find a general who was a match for Lee. Lee could win even when the opposing army was larger than his own. Lincoln tried one general after another until he wondered if he could ever find any one who could defeat Lee.

Ulysses S. Grant (1822-1885)

The Grant family, who lived on the Ohio River twenty-five miles southeast of Cincinnati, could not agree on the name to give their boy, born in 1822. Each relative dropped a name in a hat. Then an aunt drew the name Ulysses (ū-lŭs'ēz). Mrs. Grant's maiden name was Simpson, and the boy was later given that for a middle name. Ulysses S. Grant had also perhaps as many nicknames as any one in American history. His neighbors sometimes called him "Useless" when he was a boy. At West Point he was "Uncle Sam." To the soldiers he was "Unconditional Surrender" Grant. He was sometimes called "United States" Grant after he became President. All of these names fitted him except "Useless."

He began to plow on his father's farm at the age of ten. It was fortunate that he liked horses and learned their ways, for later he had to manage them when bullets were whistling by. He had a horse of his own at

the age of nine. The next year he drove a team alone on a forty-mile trip.

When he was eleven, he hauled logs from the forest to a building. Eleven men cut, hewed, and loaded the logs. He went to the forest one cloudy day for a load of logs, but did not find the men. He could not lift one end of a log. He looked around and saw (1) some logs already cut, (2) a tree half fallen, its top resting in the crotch of another tree, (3) the wagon, (4) the rope and chain that he carried, and (5) the horses. It was his problem to load the logs. He loaded them, using the same kind of imagination and common sense that later made him a great general.

He graduated at West Point, where he took high honors in mathematics. He stood at the head of his class in horsemanship. Then he went to the Mexican War, where he was promoted twice for bravery.

Lincoln Discovers Grant

Grant soon became a brigadier general in the Civil War and captured Forts Henry and Donelson in northern Tennessee. Lincoln sent him to take Vicksburg, a city in Mississippi so well protected on the north by the river and the hill on which it stood that he could not take it from that side. Neither could he march by land south of it. He then thought of other movements, just as he had tried a new way of

loading logs. He crossed the Mississippi River, marched south, crossed back, and cut off Vicksburg from the south. After a siege he took the city (July 4, 1863), the day after the Union won the battle of Gettysburg.

A Union army had been defeated in a great battle near Chattanooga, Tennessee. The army fled into the city and was in danger of being starved into surrendering. Grant came and defeated the Confederates. Lincoln soon gave him command of all the armies of the United States (March, 1864).



LINCOLN'S FIRST MEETING WITH GRANT

Grant Meets Lee

The war had been fought for nearly three full years when Grant came to Washington to take command of the Union armies. Lincoln said to him: "I want you to take Richmond." The cry of the North since the beginning of the war had been "On to Richmond!" for Richmond, in Virginia, was the capital of the Confederacy. The North could not understand how Lee had held Richmond so long against the Union armies sent against it.

Grant listened to the popular cry and started for Richmond with his army. He fought hard against Lee. Grant wrote: "The fighting was as desperate as the world has ever witnessed." Rivers and swamps made it difficult to reach Richmond from the north. Grant had never before faced a general so skillful as Lee. The impatience of the North kept Grant hammering away until he had lost nearly as many soldiers as Lee had in his army.

Grant then showed the same skill that he used in loading the logs. He stopped his attacks on Lee's fortified positions, marched south, laid siege to Petersburg, took it in the spring (1865), then went north toward Richmond. Lee could not hold Richmond after Petersburg had fallen. Grant stopped Lee's army on its flight west, and Lee surrendered to him

(April 9, 1865). This was the last great battle of our Civil War.

Grant later became President of the United States for two terms. His splendid tomb is one of the landmarks of the city of New York. Lee was made President of Washington and Lee University, in Virginia, and held that position until his death.

Assassination of Lincoln

Lincoln went to Richmond after Lee surrendered. It was now certain that the Union would be preserved and that the slaves would be freed. The objects for which he had fought were won. All his life had been a struggle. The deep lines in his face showed how hard it had been. He would now rest.

He came back from Richmond and went to a theater to forget his cares for an evening. An actor, enraged at Lincoln's triumph, gained entrance to his box and fired a bullet into the back of Lincoln's head. Lincoln died the next morning, and the whole world mourned.

Walt Whitman, an American poet, wrote the nation's funeral hymn for Lincoln in his poem *O Captain! My Captain!*

Reasons for Lincoln's Success

Men study Lincoln's life to-day to learn how he succeeded in his great task. They think of the other

great men of that time, but can name no one else who could have filled Lincoln's shoes during the war. Let us try to find the reasons for his success.

He was patient and could wait until the country was ready for the step that he wished to take. He held back his Emancipation Proclamation to free the slaves until the North was prepared to receive it.

He was kindly. He loved to help any creature that suffered. Everybody naturally likes such a person.

He was strong and brave. He could fight, and fight hard, when necessary. He kept his courage when many others were ready to give up.

He was willing to forgive. He said: "I never thought resentment paid." By "resentment" he meant "holding a grudge," "trying to get even," "paying him back in his own coin." He disliked slavery, but he did not hate the southern people. He said that no one need expect him to persecute or hang even the worst in the South after they were conquered. Lincoln's *Second Inaugural Address*, spoken almost at the end of the war, begins with eight words that show this side of his nature: "With malice toward none, with charity for all."

THINGS TO DO

Explain why the United States became more difficult to govern as it grew in size.

Talk to the class for two minutes on the subject: "How Lincoln's Mother Trained Him."

Give the ways in which Lincoln trained himself to use English.

Give two little plays that will show how Lincoln earned his two titles.

Describe how Lincoln became nationally known.

Tell why the Civil War began.

Write a short composition about the two great generals of the Civil War.

Give the reasons why Lincoln is not forgotten.

SOME BOOKS THAT WILL HELP YOU

Smith, B. W., *Boyhoods of the Presidents*, 149-161 (Lincoln).

Baldwin, J., *Four Great Americans*, 179-235 (The story of Abraham Lincoln).

Phillips, E. C., *Story of Nancy Hanks* (Lincoln's mother).

Tarbell, I. M., *Boy Scouts' Life of Lincoln*.

Nicolay, H., *Boys' Life of Lincoln*.

Olcott, F. J., *Good Stories for Great Birthdays*, 173-187 (Lincoln, February 12).

Burton, A. H., *Four American Patriots*, 195-254 (Grant).

Coe, F. E., 338-342 (Grant); 325-337 (Lee).

McSpadden, J. W., *Boys' Book of Famous Soldiers*, 26-49 (Grant); 51-75 (Lee).

Hamilton, J. G., *Life of Robert E. Lee for Boys and Girls*.

REFERENCES FOR TEACHERS. — Beveridge, A. J., *Abraham Lincoln* (1809-1858); Charnwood, G. R. B., *Abraham Lincoln*; Schurz, C., *Abraham Lincoln* (*Riverside Literature Series*); Corson, O. T., *Abraham Lincoln*; Stephenson, N. W., *Abraham Lincoln and the Union* (*Chronicles of America*).



AN EARLY TYPE OF AUTOMOBILE

CHAPTER XII

ON THE WAY TO THE AUTOMOBILE

THE Civil War was a cruel waste of life and property, from which the country was slow to recover. This chapter will show how the skill of inventors and the efforts of workers and business men have helped to make life what it is to-day.

The automobile is one of the joys and conveniences of modern life. In the days of horses, people did not often drive more than ten miles from home. To go that distance and return used up almost a day. Twenty miles is now only a little twilight run. The automobile gives many people a chance to see more of the world. Travel helps to educate people.

The use of the automobile began with the twentieth century. We have seen (Chapter IX) how the nation

started to build good roads. The automobile would have been useless without them. Let us now study some of the nearer steps on the way to the automobile.

1. How did the automobile get its rubber tires?
2. How was more iron discovered to meet the demand for millions of automobiles?
3. How was a new way found to make cheaper steel?
4. How did a poor boy become a great captain of industry and show the world the modern way of producing the vast amounts of iron and steel needed for automobiles and other things?
5. How did a modern genius build automobiles at such a low price that millions could afford to own them soon after they were invented?

The answers to these questions will do more than take us to the modern automobile. We shall find ourselves at the end of this chapter in a land of modern industry, in which the United States now leads the world. The signposts along the way are so clear that it will be easy for us to remember how we reached the land of big business where we are now living.

Charles Goodyear

Charles Goodyear (1800-1860) was born in New Haven, Connecticut, the last year of the eighteenth century. It is through his work that we have rubber

tires for our automobiles, and many other things made of rubber.

Goodyear set himself one problem — how to make the gum of the rubber tree useful to man. We call this gum "India" rubber, because the Spaniards found it in the West Indies. It was called "rubber" after some one found it would rub out pencil marks.

It took a long time to make India rubber useful to man. Goodyear spent his money and his life trying to solve the problem. He fell in debt while experimenting and was sent to prison because he could not pay. His wife and children were often hungry and sick. The secret of making serviceable rubber kept dodging him.

He easily found that rubber would shed water. "The world needs rubber overshoes, and I will make them," he said. He made them in cool weather, and they seemed to be a success. It turned cold, and they became almost as hard as iron. In hot weather, they melted like butter over a stove. Daniel Webster found that his rubber cloak and hat behaved in the same way. In cold weather they became as stiff as tin. He stood the cloak up on his grounds and put the hat on it. People at a distance wondered why he was standing out in the cold.

While working to keep rubber from turning hard in winter and soft in summer, Goodyear sold his books and pawned his presents. When one of his children

was dying, he asked a man for money. The man gave him seven dollars and scolded him for not doing something to support his family. People said that he had gone crazy about India rubber and that he carried a purse of India rubber without a cent in it.



WEBSTER'S RUBBER COAT AND HAT STARTLE HIS NEIGHBORS

Once he felt sure that the use of nitric acid had cured rubber of its worst faults. The United States then gave him an order for a number of rubber mail bags. He made them, hung them up to cure, and went away for a holiday. When he came back, he found them rotting in a heap on the floor. He was then poorer than ever, and his friends would not help him any more.

Goodyear was told that a mixture of rubber and sulphur exposed to the sun would solve his problem. This treatment did not help thick pieces of rubber. He next boiled rubber gum in sulphur melted at great heat, but did not secure the desired result. Then a fortunate accident happened. He spilled some of the mixture on his wife's red-hot cookstove. It hardened at once. This seemed strange because summer heat had melted rubber. He repeated this accidental experiment and found that such treatment would make rubber hard, more elastic, and enable it to keep its shape. The summer sun and winter cold no longer changed it.

Goodyear had thus finally found the secret of making rubber useful in a thousand ways. One of these ways is the use of rubber to-day in automobile tires. His process is called "vulcanizing" rubber, or hardening it by heat after it has been properly mixed with sulphur. The word "vulcanizing" comes from Vulcan, the Roman god of fire. Since the time Goodyear took out his patent (1844), his way of vulcanizing rubber has been used almost unchanged.

Others made fortunes by his invention, but he died poor through no fault of his own. The next time that we take an automobile ride on easy tires, let us think of Goodyear, who made such a ride possible. He has left us this motto: "Do not use dollars and cents to measure success in life."

More Iron Needed

The world was growing so fast that it needed more iron. Soon after Goodyear learned how to vulcanize rubber, an Indian chief, named Man-jik-i-jik, said to Philo M. Everett of Jackson, Michigan: "I can take you to a great mountain of solid iron."

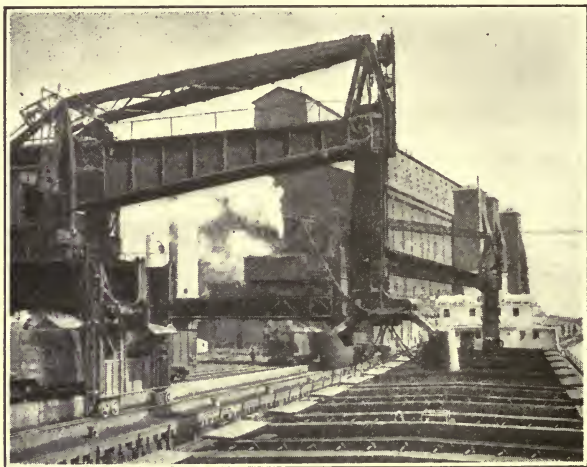
People said that the Indian was telling fairy stories. Everett found thirteen men willing to give money for a trip in search of this iron. He took two Indians and four white men and went north to Lake Superior. They bought a boat there and sailed west. The seas were sometimes as "high as a house." They landed and went into the northern part of Minnesota. After they had been gone six weeks, the Indians pointed to a hill and said: "Iron mountain!"

The Indians thought there was an evil spirit in iron, and they would go no farther. "White men go; we wait," they said. The white men went and found (1845) "a mountain one hundred and fifty feet high, of solid iron ore." Everett has been called "the Christopher Columbus of the Lake Superior ore region."

Other beds of iron ore were soon found in northern Michigan and Wisconsin. The Mesabi (mě-să'bě) range in northern Minnesota has solid beds of iron ore near the surface. One bed is from one hundred to four hundred feet thick. Look at your map and find

Hibbing, a city in the Mesabi region. The Mesabi iron does not need to be mined. A steam shovel scoops up five tons at a time and drops the ore into a freight car.

These beds of iron ore have given the United States material to make more steel than any other nation in



Ewing Galloway

UNLOADING IRON ORE INTO FREIGHT CARS

Freight cars carry iron ore from the mines to steamers which transport it to cities on the Great Lakes. Here it is unloaded from the steamer to other freight cars which carry it to its destination.

the world. The iron is easily taken by train to Lake Superior, dropped into the hold of a large steamer, and unloaded at some port near the iron works. Pittsburgh, a great center of the iron trade, is not far from Lake Erie.

Find Birmingham on your map of Alabama. Won-

derful beds of iron ore were found near that city in the last quarter of the nineteenth century.

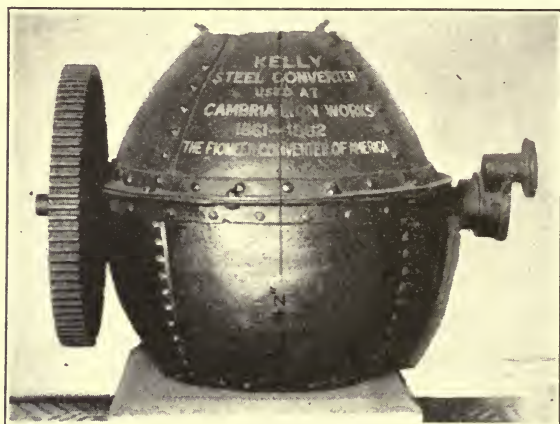
A New Way to Make Cheaper Steel

Most of us would not be using automobiles to-day if some one had not found a way to make cheaper steel. William Kelly (1811-1885), born in Pittsburgh, has the honor of first learning the way. The discovery was made in his iron works at Eddyville, Kentucky, just before the middle of the nineteenth century.

In the old way of making steel it took a very hot charcoal fire from a week to ten days to burn the impurities out of the iron. Steel was, therefore, very expensive. Kelly had burned up all the trees within seven miles of his furnace. One day he saw a white-hot spot in the edge of the yellow molten iron metal. This spot was almost turning to mist, although there was no charcoal near. He found that a blast of cold air was striking the spot. Every ironmaker said that cold air would chill iron. This air was making it white hot. Kelly exclaimed: "Air is fuel!" In truth, the extra supply of air made it possible for the impurities in the iron to burn and make a fierce heat.

Kelly made a converter or large iron pot twice as tall as a man. He poured molten iron into this and then sent blasts of air into it through little holes in the bottom. A volcanic eruption seemed to be taking

place inside. Thousands of sparks were hurled fifty feet into the air. The blast of air was behaving like a



MODEL OF THE KELLY STEEL CONVERTER

fiery dragon, eating up the impurities in the iron. In less than fifteen minutes this converter did as much work as charcoal fires could do in a week.

Henry Bessemer, an Englishman, discovered this same way of making steel several years after Kelly. Bessemer was made a knight for his discovery and called Sir Henry Bessemer. Little attention was paid to the real discoverer because Bessemer made steel in very large quantities. The United States rightly refused Bessemer a patent and gave it to Kelly. But the new grade of steel or refined iron was called Bessemer steel, instead of Kelly steel, even in this country.

Steel had been too expensive for railroad tracks, and iron was used instead. After this new process of making steel was found, the railroads could afford to buy steel rails. The heavy locomotives and trains of to-day would soon destroy iron rails.

Andrew Carnegie, Maker of Steel and Giver of Good Gifts

The United States is to-day known for many mills and factories, each of which makes things in very large quantities. Andrew Carnegie (kär-něg'ĭ) (1835-1919) was the first great manufacturer of steel. Andy, as he was called, came to this country with his Scotch parents (1848) when he was a boy of twelve and a half years. His father had been a weaver, and the boy naturally sought employment in a cotton mill. For a week's work Andy was paid about what two dollars and a half would now buy.

Andy became a telegraph messenger at better wages. The boys were paid a dime for taking a telegram beyond a certain distance. There was trouble when some boys had more than a fair share of such messages. Andy taught the boys to get together and "pool" all these dimes. "Pooling" meant putting them together and dividing them equally. He became the treasurer. This was his first attempt at leading other people. He later became a great business leader.

The Turning Point in Carnegie's Life

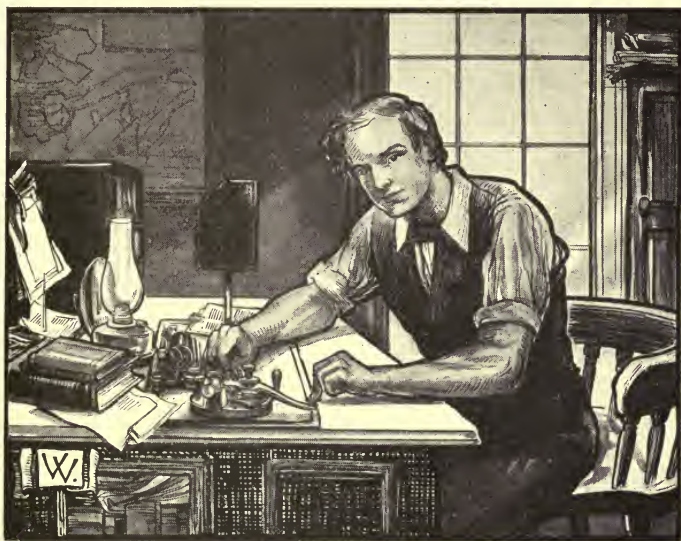
While he was still a boy, Andy tried to make himself ready for whatever might come. When he delivered telegrams, he learned by heart the names of the business men and firms on the chief Pittsburgh streets. He learned to know the men themselves and often surprised them by giving them messages on the street as they came to their offices in the morning. He learned how to telegraph. He then became clerk to the superintendent of the Pittsburgh division of the Pennsylvania Railroad.

The superintendent was absent one morning when a telegram came, saying that an accident had tied up all the passenger and freight trains on the Pittsburgh division of the railroad. The boy knew every station on what was then a single-track road. He also knew every siding that could be used to let trains pass. He was sure that he could solve the puzzle and soon "bring in the wearied freight train men who had lain out all night." That Scotch boy was bright enough to know that he would lose his job and probably be sent to jail if he made a mistake.

It was then against the rule for any one but the superintendent to direct by telegraph the movement of trains. Andy, however, sent the telegrams to move the trains and signed them all "Thomas A. Scott," the name of the superintendent. Andy sat at the telegraph

instrument, watching every sound. He carried the trains from station to station and siding to siding. Everything was running smoothly when in walked Colonel Scott. Andy told him what he had done.

Andy noticed that the colonel's face turned white. He then showed the colonel the latest telegrams giving



CARNEGIE AT THE TELEGRAPH INSTRUMENT

the position of every train on the line. Everything was moving in order.

That evening Colonel Scott asked an officer of the Pennsylvania Railroad: "Do you know what that little white-haired Scotch imp of mine did? I'm

blamed if he didn't run every train on the division in my name without permission."

"And did he do it all right?" asked the officer.

"Oh, yes, all right," was the reply.

Andy's quickness to meet this condition was a turning point in his life. The president of the railroad soon came to take a look at him and asked: "Is this Scott's Andy?" Years later he gave Andy's steel mills very large orders for steel rails and other railroad supplies. After his successful trial, Andy was allowed to run the trains when the superintendent was absent. Andy himself became superintendent at the age of twenty-eight.

Colonel Scott had been made a railroad president. He soon sent for Carnegie and asked him to sell \$6,000,000 worth of railroad bonds in Europe. Carnegie sold them and received \$225,000 for his work.

The World's Greatest Maker of Steel

When Carnegie saw a steel converter, "half furnace and half cyclone," change iron into steel, he said: "That is the business for me." He grew to be the world's greatest maker of steel before the twentieth century. He brought in the modern way of making great amounts at one time. The Carnegie Steel Company had its own iron mines, coal mines, railroads, steamships, and giant steel mills.

Carnegie succeeded because he was always ready for

what came. He learned to make friends when he was a telegraph messenger boy. He learned telegraphy and was ready to move the trains. Then he moved them and won the admiration and friendship of railway officials. They gave his steel company steady business.

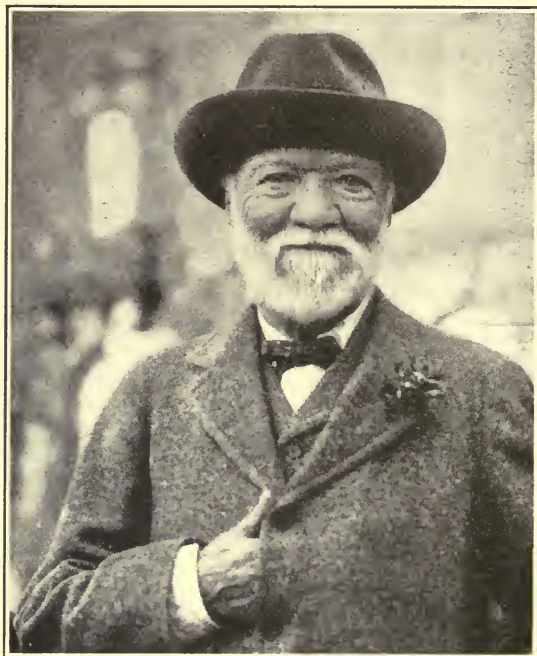
Carnegie's motto was "Be quick. The one who starts first gets the oyster; the second man gets the shell." He was ready to make steel night and day when the railroads doubled their tracks. He was ready when the new skyscrapers wanted steel for their frames. The mills he built were ready to make steel for automobiles when they were invented.

At the beginning of the twentieth century he and his partners sold the Carnegie Steel Company to a new giant corporation for nearly half a billion dollars. His share brought him about a quarter of a billion. He and his partners had started as poor barefoot boys. His income had grown from one dollar and twenty cents a week to \$44,000 a day, or almost one hundred dollars a minute for the eight working hours.

Carnegie's Influence

(1) Carnegie taught young people to be ready for a chance when it comes and to be quick to seize the chance. (2) He showed the twentieth century how to manage a giant business successfully. (3) He is most famous for the way in which he used his vast fortune.

He loved books and libraries. He began by giving five and a quarter million dollars for sixty-eight branch libraries in the city of New York. He gave public



Brown Bros.

ANDREW CARNEGIE

All his photographs show his sunny smile

libraries to every state in the Union. Some states have one or more Carnegie libraries in nearly every county.

He gave \$75,000,000 for colleges and schools, and for the improvement of education. He built the Hague (hāg) Peace Palace, where a court of nations may meet to

settle their quarrels peacefully. He gave \$10,000,000 to the Carnegie Endowment for International Peace. The sum of \$15,000,000 was set aside for pensions for college teachers. He provided a yearly pension of \$25,000 for ex-Presidents of the United States. It takes a book of three hundred twenty-one printed pages to describe all of Andrew Carnegie's public gifts. His example still leads other rich men to give more liberally.

It was once said that a millionaire seldom smiles. This is not true. The one who does good to others usually smiles. Carnegie smiled throughout his life.

In his *Autobiography*, he left this advice to young people: "A sunny disposition is worth more than a fortune. Young people should know that it can be cultivated; that the mind, like the body, can be moved from the shade into sunshine. Let us move it, then."

Henry Ford

Henry Ford came to use more than three hundred million pounds of steel in a year for making automobiles. We can now see why more iron and cheaper steel were necessary to make automobiles for everybody.

Henry Ford was born (1863) on a farm at Dearborn, Michigan, about nine miles west of Detroit. He walked two and a half miles to school in the winter and worked on his father's farm in the summer.

As a boy, he was more interested in machines than in anything else. He took a watch apart, saw the use of all the wheels, and had no trouble in putting them together. He enjoyed mending the watches and clocks of the neighbors. He used one of his mother's knitting needles to make a small screw driver for a watch. He never charged anything even when he walked a number of miles to mend timepieces. His father finally ordered him to stop doing so much business that paid nothing.

At the age of sixteen Henry went to Detroit. He worked there in machine shops as an apprentice ten hours a day at two and a half dollars a week. He had to pay three and a half dollars a week for his board and room. How to make the extra money was a problem. He solved it by working four hours each evening for a jeweler, repairing watches for two dollars a week. It has been said that if he could have lived for nothing, he would have been glad to work for nothing, so long as he worked with machinery. Every hour of his fourteen working hours seemed like only a minute because he was doing what he liked. After he had learned all that one machine shop could teach him, he went to work at another.

During the last years of his working for others, he was chief engineer of the Detroit Edison Company at a salary of one hundred thirty-five dollars a month. At the same time he was working much of the night

for himself, trying to make an automobile. He worked for nearly twelve years before he built a successful gasoline car.



HENRY FORD IN HIS FIRST AUTOMOBILE

Henry Ford's Aims

Henry Ford aimed to do four things, and he did them all. These aims were (1) to make and sell automobiles in very large quantities, (2) to charge only a small profit on each one, (3) to give to the largest possible number of people the chance to have an automobile. He said that he would rather make a profit of \$50 apiece on a million machines than a profit of \$500 apiece on one hundred thousand. "I would rather make 20,000

or 30,000 employees happy than make a few millionaires," said Ford. (4) His fourth aim was to pay high wages. He was the first man in the world to pay floor sweepers \$5 a day. He paid that sum or more to all his employees (1914) and thus displeased some other employers. But many later decided that high wages are a good thing because such wages make workmen able to buy more of what the employers make or have to sell.

Makes Automobiles

Ford first tried to build a carriage driven by a steam engine, but it was unsuccessful because it had to carry much wood or coal to make steam. The gasoline engine had not yet been invented. He built a gasoline engine for himself as soon as he saw one used in a bottling works. His first gasoline car would not back and he could not turn it around. He kept on trying until he made a successful automobile.

To-day we take the automobile for granted. A Detroit newspaper reporter took his first ride with Ford in one of the first really practical gasoline cars on this continent (March, 1900). The reporter's article was headed: "Thrilling Trip in the First Detroit-Made Automobile." The reporter tells how pedestrians stopped and people came to the windows, how interested the horses were, how Ford just missed hitting a wagon, and grazed a curbstone. The reporter wrote: "Block

after block of houses vanished into thin air as the automobile's speed increased. I began to have a creepy feeling and told Ford I wanted to get out." "Nonsense! no danger," was the reply. Ford was really an expert driver and did not rest content until he had later driven his car ninety-two miles an hour on the ice near Detroit.

There are many other makers of low-priced automobiles to-day, but Henry Ford will long be known as the first man to make automobiles by the millions, for everybody, at a low price. He showed the new spirit of the twentieth century in his desire to produce things in large numbers at prices within the reach of all.

THINGS TO DO

One modern automobile factory uses in one year more than 4,000,000 pounds of rubber and 300,000,000 pounds of steel. How did men solve the problem of getting all the rubber and steel needed?

Notice in how many ways rubber is used about your home.

Make a list of the ways in which you have seen steel used.

Find out if there is a Carnegie Library in your state.

Dramatize one or more scenes from the lives of Charles Goodyear, William Kelly, Henry Ford, and Andrew Carnegie. This text and the books listed on the following page will help you.

SOME BOOKS THAT WILL HELP YOU

Darrow, F. L., *Thinkers and Doers*, Chapter XIII, "Tapping the Rubber Tree" (Goodyear); Chapter XIV, "The Age of Steel."

Parkman, M. R., *Conquests of Invention*, 107-131 (Goodyear); 298-309 (Kelly); 310, 324 (Ford).

Wade, M. H., *The Master Builders*, 174-214 (Carnegie); 215-263 (Ford).

Carnegie's Own Story for Boys and Girls (Riverside Literature Series).

Autobiography of Andrew Carnegie (Popular Edition).

REFERENCES FOR TEACHERS. — Thompson, H., *The Age of Invention* (*Chronicles of America*), Chapter VII, The Story of Rubber; *Manual of the Public Benefaction of Andrew Carnegie*; Hendrick, B. I., *The Age of Big Business* (*Chronicles of America*), Chapter III, The Epic of Steel; Chapter VII, The Democratism of the Automobile; Benson, A. L., *The New Henry Ford*.



AN INDIAN SENDING SMOKE SIGNALS

Smoke signals were often used by the Indians in the early years of our country.

CHAPTER XIII

CONQUERING DISTANCE

THE railroad and the automobile were wonderful inventions, but they could not travel so fast as thought nor could they fly like a bird. The men whom we shall meet in this chapter did those things that seemed impossible not very long ago.

Before the last century, no one had found a way of signaling farther than the eye could see or the ear could hear. The Indians sometimes built a fire to show that there was an enemy near. To get that message, one had to be within sight of the smoke by day or the fire at night. At the time of our Declaration of Independence, the world had not solved the problem of talking with others beyond the range of sight and

hearing. Such far-talking as we now use would then have seemed to be a miracle.

An Eye Telegraph Line

The word "telegraph" is from the Greek and really means "far-writing." Early in the last century, England had an eye telegraph line, seventy-seven miles long, from Dover on the English Channel to London. This line had no wires. It was a series of upright posts that could be used to signal, somewhat like those we now see along railroad tracks. These posts had to be within sight of one another. Men passed on the signal from one post to another.

London was very anxious to hear the result of the battle of Waterloo (1815), because if Napoleon won, he was expected to invade England. When a vessel reached Dover, bringing the news of Napoleon's defeat, the man at the first post signaled to the second; and he, to the next. But a heavy fog set in, and men could not see the distance between the posts. London had to wait until a man on horseback brought the news.

An Ear Telegraph Line

When the Erie Canal (pp. 174-176) was finished (1825), Governor De Witt Clinton of New York started from Buffalo at the head of a pageant of canal boats for the city of New York. He went on a gayly

decorated boat called *Seneca Chief*. Four handsome gray horses drew his boat at the speed of about four miles an hour.

The opening of the Erie Canal was an event so important that it was decided to telegraph New York when the *Seneca Chief* began to move. This message was sent by an ear telegraph line about five hundred miles long. The telegraph instruments were cannons, placed from eight to twelve miles apart, along the route from Buffalo to New York. The man at the second cannon fired as soon as he heard the signal from the first. Then the third cannon was discharged, and the other cannons passed on the signal in order. In eighty minutes the last cannon was fired, telling New York that the pageant had started. Then the cannons were used to telegraph in the same way back to Buffalo that the news had been received. It is probable that before this time no telegraph message had ever been actually sent five hundred miles in eighty minutes.

The growth of America made necessary quicker ways of getting news. A telegraph cable to Europe could have prevented the killing of more than two thousand men in the battle of New Orleans (January 8, 1815), which took place after peace had been declared. Great Britain and the United States signed in Belgium, the day before Christmas, 1814, the treaty ending the

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War of 1812. But the news of this treaty did not reach the United States until more than a month later.



© *Caufield and Shook*

THE PONY EXPRESS LEAVING ST. JOSEPH, MO., 1860

The Pony Express carried mail from Missouri to the Pacific Coast before railroads or telegraph lines were built there. Relays of fast horses were used, and trips were made in record time.

Morse, Inventor of the Electric Telegraph

It ought to make us take more pride in our country to know that it was an American who first showed the world how to send telegraph messages as quickly as thought. The electric telegraph is one of the great inventions in the history of the world.

Samuel Finley Breese Morse (1791-1872), the son of a New England Congregational minister, was born in Charlestown, Massachusetts. He entered Yale College at the age of fourteen. He was fortunate enough to be taught by Professor Jeremiah Day, who

gave real experiments in electricity. Morse wrote home, "these are very interesting." He never forgot them. They led later to his great invention.

Morse had imagination and wanted to be an artist. He went to Europe to study, and he became a good portrait painter. He was in Washington, painting the portrait of Lafayette, when word came in the usual slow way that his wife had died in New Haven, Connecticut, seven days before. If there had been a telegraph and a railroad, he might have reached her before she died. As it was, he went to mourn at her grave.

He returned to his painting to support his three young children. He also went to hear lectures on electricity. He found that the study of electricity would bring him no chance to earn a living, so he went to Europe again to study art.

First Steps toward Inventing the Electric Telegraph

His trip back to America (1832) on the sailing ship *Sully* lasted six weeks. There were several scientists on board. One was fresh from a study of electricity in Paris. This scientist said that Benjamin Franklin's experiments showed that electricity passed instantly from one end of any known length of wire to the other end. This idea roused Morse's imagination. He said to himself: "Suppose that I am at one end

of a hundred-mile or a thousand-mile wire and that I start a series of broken electrical currents over the wire. A spark appears at the end whenever the current is broken. Suppose that the sparks vary in distance apart. Can they not be taken down as dots and dashes at the receiving end of the wire? Cannot an alphabet be made in this way? If so, I can send my far-writing instantly to any one at the other end of the wire."

He at once went to work on board the vessel to plan his alphabet of dots and dashes. He also made a rough drawing, showing the way a telegraph instrument would work. Before the ship reached New York, Morse said: "Captain, if you should in future hear of the telegraph as one of the wonders of the world, please remember that the discovery was made aboard the *Sully*."

Morse had now thought out what was needed for telegraphing. Others knew more about electricity. What he lacked in knowledge, he more than made up in imagination.

He set to work on his invention. He was very poor, and during this time he nearly starved. Sometimes while working in his laboratory, he went twenty-four hours without eating. He had a small class of art pupils, and he asked one of them for his tuition. The young man said he expected to receive money from home the next week.

"Next week! I shall be dead by that time," said Morse.

"Dead, sir?"

"Yes, dead by starvation."

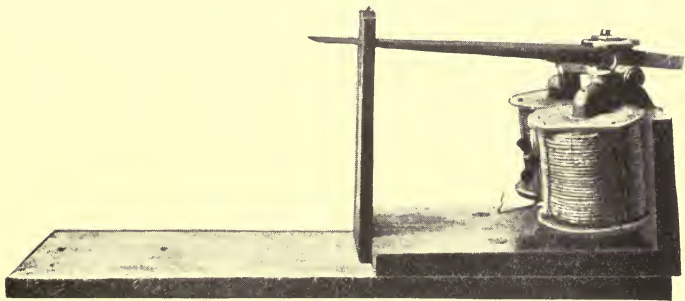
"Would ten dollars be of any service?"

"Ten dollars would save my life."

The pupil wrote in after times: "I paid the money, all that I had, and we dined together."

Congress Aids Morse

Morse struggled on with the aid of friends and made his telegraph work. He needed money to build a tele-



MORSE'S TELEGRAPH APPARATUS

Model in the United States National Museum, Washington, D. C.

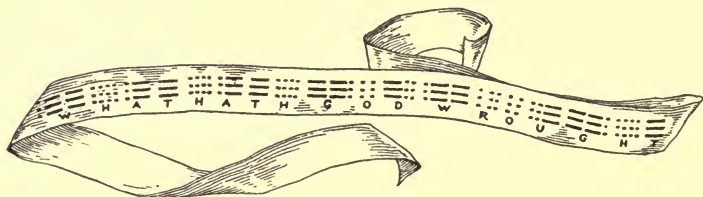
graph line and prove that his invention could be used. He asked Congress for \$30,000 to build a line from Washington to Baltimore. While he was showing how the telegraph worked, one senator looked at his face carefully to see if he was crazy.

The House of Representatives passed his bill, but the morning of March 3, 1843, dawned without its passage by the Senate. He knew that the Senate had to adjourn at midnight. His bill would be lost unless it was passed by that time. He sat in the Senate gallery all day and until late at night. His friends told him his bill could not possibly be reached before midnight, so he went sadly to his room.

The next morning at breakfast a young lady, Miss Ellsworth, said to him: "I congratulate you on the passage of your bill. My father was present, and saw it passed almost at the stroke of midnight."

Morse replied: "Miss Ellsworth, you shall send the first message over the line when it is finished."

On May 24, 1844, she handed Morse this message: "What hath God wrought!" Morse himself tele-



THE FIRST MESSAGE FLASHED OVER THE TELEGRAPH WIRES

graphed it to his friend and helper, Alfred Vail, forty miles away in Baltimore. Vail at once flashed the message back to Morse. For the first time people could talk beyond the range of eye and ear.

How a Convention Tested the Telegraph

Two days later, the Democratic national convention at Baltimore nominated James K. Polk of Tennessee for President. In the election that followed Polk was chosen President; and it was under his administration that the United States got its new territory, reaching to the Pacific Ocean (p. 200). The telegraph was fortunately at hand to meet the needs of the growing country.

After nominating Polk, the convention sent a man on horseback to Washington to ask Senator Silas Wright of New York if he would accept the nomination for Vice President. A telegram was also sent to Wright, and he telegraphed back at once that he would not accept. The delegates did not like to trust the new invention. They waited until their messenger returned and proved that the telegraph could be trusted.

Morse's Rewards

Morse offered his invention to the United States for \$100,000. The offer was refused. Others used his patents for some time. He had to pay for expensive lawsuits, but the Supreme Court of the United States finally decided that Morse was the inventor of the telegraph. After paying for his lawsuits, he received probably about \$80,000 for his patent in the United

States. This sum could buy at that time more than twice as much as it can buy to-day. He was never again poor.

One of the pleasant facts to remember about Morse's invention is his treatment by a large number of nations



SAMUEL F. B. MORSE

He is wearing some of his honorary medals.

in Europe, where he had no patent. Headed by France, they took up a collection and sent him \$80,000 to

show their appreciation of his invention. Many European nations gave him gold medals. Turkey made him a member of the Order of Glory and gave him its decoration set in diamonds. Spain and Portugal made him a knight. France raised him to the rank of knight in the Legion of Honor.

Before Morse died (1872), a cable had been laid under the Atlantic Ocean to Europe. He had the joy of being able to telegraph to California and to Europe. He was a great conqueror of distance.

Bell, Inventor of the Telephone

Alexander Graham Bell (1847-1922) was born in Edinburgh (ěd'ín-bŭr-ō), Scotland. His father taught pupils to speak correctly, and worked specially with those who were deaf. He taught his sons how human speech is produced and asked them to make a speaking machine. One made vocal cords and the other, a mouth, from correct models. They placed this machine in the common hall of an apartment house in Edinburgh. One blew through a tube while the other moved the mouth. A baby in pain seemed to be crying "Ma-ma! Ma-ma!" They heard some one upstairs call: "What is the matter with that baby?" Such experiments with human speech started Alexander Graham Bell on the road to inventing the telephone.

Bell went to Canada when he was twenty-three and soon moved to Boston (1872), where he taught deaf children and others who had trouble with their speech. He experimented with the drum of the human ear. He watched how the human voice made the bones behind the drum vibrate. He wondered if vibrations of a thin metal drum might not cause an electric wire to vibrate. The idea of the telephone began to take shape in his mind.

He went to a famous scientist and said: "I have not enough electrical knowledge to go on with my telephone." He was told that he could learn enough electricity. He gave up all of his pupils but two, Georgie Sanders and fifteen-year-old Mabel Hubbard, both deaf. He had a workshop in the basement of the Sanders home. The fathers of these two children let him have the money for his experiments.

Invention of the Telephone

Bell and his helper were working in different rooms at the ends of a wire which touched an electromagnet and a spring. Bell heard a sound at his end of the wire and dashed to his assistant to learn the cause. Bell found that his helper's spring had caught and that he had made it vibrate and changed the force of the current while working with it. This vibration had caused the spring at the other end of the electrified

line to vibrate in the same way and make the same sound. This was one of the great discoveries in history.

Bell now knew why and how the sound was made. It took forty weeks of hard work to improve the machinery and connections so that he could talk over the line. On March 10 of our centennial year (1876), Bell called over the telephone to his helper in another room: "Mr. Watson, please come here, I want you." The helper came in a hurry. The telephone had been invented.

Thirty-nine years later (1915), Bell and his helper were at opposite ends of a wire 3390 miles long, connecting New York and San Francisco. Bell called from New York: "Mr. Watson, please come here, I



Brown Bros.

OPENING THE TRANSCONTINENTAL TELEPHONE LINE, 1915, BETWEEN NEW YORK AND SAN FRANCISCO

Bell is the white-bearded man in the center.

want you." Watson answered: "It would take me a week now."

How the Telephone Became Known

At first, only a few persons thought that Bell's telephone was worth much. Mabel Hubbard's father was one of those few. He managed the educational exhibit of the Centennial Exposition at Philadelphia (1876). He had the telephone placed on a table in that exhibit, but it remained unnoticed for a month. Visitors thought it was nothing but a toy. Hubbard wished Bell to come to Philadelphia, but Bell was so busy that he decided not to come.

Miss Hubbard told Bell that the judges would see his telephone the next day. She begged him in sign language to take her to Philadelphia to see her father. He went with her to the station and put her on the train. When the train was starting, she broke down and cried because he would not go. He then jumped on the train and went to Philadelphia with her.

The next day it was late when the judges reached his exhibit. They were so tired that they decided not to look at it. Bell knew that they would not come again to that room. Just then the Emperor of Brazil happened to catch sight of Bell. He had seen Bell teach and remembered him well. He at once asked: "Mr. Bell, how are the deaf mutes in Boston?" He

took Bell by the arm and went to see the telephone. Of course, the others followed where the emperor went. He put the telephone to his ear, and Bell went to another room and telephoned to him. "It talks!" exclaimed the startled emperor. It seemed to him like a miracle.



THE EMPEROR OF BRAZIL EXAMINING THE TELEPHONE APPARATUS

Bell awoke the next morning to find himself famous. He never forgot what he owed to Mabel Hubbard. If it had not been for her, his telephone might have remained unknown for some time and he might have sold it for a song. Mabel Hubbard soon became Mrs. Bell, and he and she lived a happy life in spite of her deafness.

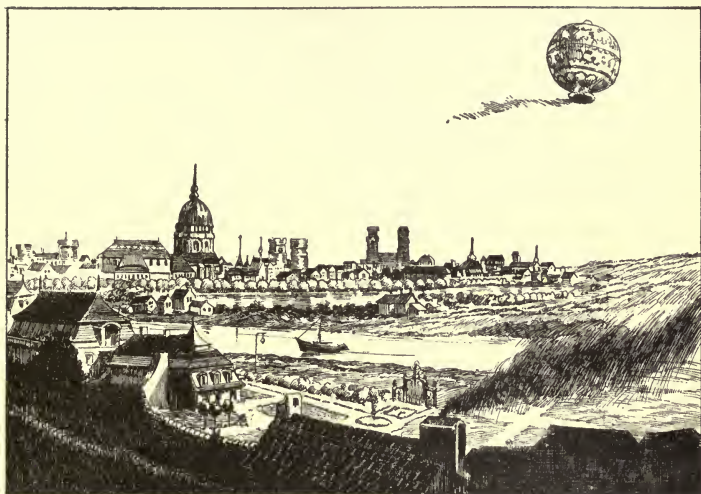
Value of the Telephone

Bell received the most valuable patent ever granted. The telephone is one of the greatest timesavers known in history. We can telephone more people in half an hour than we could see in half a day. The stoppage of telephone service for one day in a large city might easily cause a loss of more than a million dollars. A telephone call to a doctor may result in saving life and easing pain. The telephone relieves the loneliness of people in the city and on the farm. It keeps us in touch with our friends and makes us feel that we are a part of the world.

Alexander Graham Bell remains a conqueror of distance, a saver of time, a bringer of company to the lonely, a cheerful bidder of good night and good morning to friends, a helper who comes to our aid in as mysterious a way as the spirit appeared when Aladdin rubbed his lamp.

The Art of Flying

People in all ages have dreamed of flying like birds. As time passed, there was more and more of a desire to try actual flying. Benjamin Franklin saw (1783) the Montgolfier (mönt-göl'fī-ēr) brothers make the first flight in a balloon near Paris, France. They heated the air in their balloon by putting chopped



THE MONTGOLFIER BALLOON OVER PARIS, 1783

From a contemporary engraving.

straw on the fire under their great bag of air, while they flew to a height of five hundred feet. They could not direct the balloon, which was blown along by the wind. When they saw themselves dropping into a river, they put more straw on the fire and rose rapidly. They soon dampened the fire with a wet sponge and alighted safely.

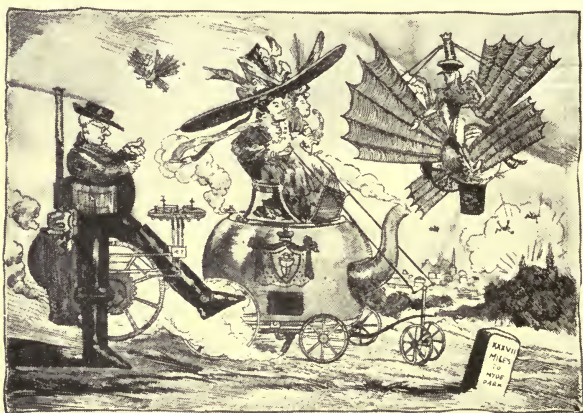
Some one asked Franklin of what use he thought flying could be. He was thrilled with thinking what science might do for the world, and so he answered the doubter by asking: "What is the use of a newborn child?" We can see how wise that answer was, when

we think that the child might possibly be another Washington or Franklin or the inventor of an airplane.

The desire to fly reached America, which soon had its balloons. The American poem *Dari'us Green and his Flying Machine* tells the story of a boy who wanted a machine that he could steer. He said:

“The birds can fly, an’ why can’t I?”

The poem tells of his building his machine while he dreamed of sailing like an eagle, of dancing on the



LOCOMOTION BY STEAM

From a comic print dating from the 1830's. On the right is an airplane which the pilot controls with his spur.

chimneys, of standing on the steeple, of flapping up to windows and scaring people. But in this “flying machine” Darius flew, we are told, only from the top of the shed into the barnyard, where he scared the calf

and the gosling nearly out of their wits. He thought flying was easy. His only trouble was in landing.

“In the midst of the barnyard he came down,
In a wonderful whirl of tangled strings,
Broken braces and broken springs,
Broken tail and broken wings,
Shooting stars and various things.”

In actual flying, as in this poem, landing was to be the great trouble for many years to come.

Wilbur and Orville Wright

At the beginning of the twentieth century, no one had flown in a machine heavier than air without having the experience of Darius Green. A great scientist in Washington said he had proved that it was impossible to fly in a machine heavier than air.

Two Americans were the first to fly in a power-driven machine heavier than air and to alight without wrecking it or hurting themselves. They were Wilbur Wright (1867-1912) and Orville Wright (1871-), the sons of a Methodist clergyman living in Dayton, Ohio.

Their father liked machinery. He brought the boys a flying top known as a “helicop’ter,” that would fly to the ceiling. The boys made helicopters, kites, and later very good bicycles.

The Wrights learned to be good mechanics while making bicycles. They then read all they could find

about flying machines. They learned as much as possible from those who had used gliders. A glider is a sort of airplane without a motor. Gulls, hawks, and buzzards soar or glide when they move through the air without flapping their wings. The Wrights thought it would be safer to learn how to control a glider before they tried a power-driven airplane.

In order to glide well, the Wrights knew that they needed to start the glider from a hill or else build a costly framework. They had little money to spend, and Congress gave them nothing. They learned that there was a tongue of land with a suitable hill in North Carolina, east of Al'bemarle Sound.

The Wrights Glide a Thousand Times from Kill Devil Hill

Now, let us get our geographies or some atlas or cyclopedia map of North Carolina and find where the Wrights went. The place is so important that the United States has placed a memorial there to mark the birthplace of successful flying. We first find Albemarle Sound, because Kitty Hawk, the little settlement to which the Wrights went, is on a strip of land between that sound and the Atlantic Ocean. Also between that sound and the Atlantic we find Roanoke Island, where Sir Walter Raleigh planted the first English colony in America.

About four miles to the south of Kitty Hawk is a sandhill more than one hundred feet high, called Kill Devil Hill. The Wrights found that it had a good slope for starting gliders into the air. They made their camp at this hill. From it they "coasted down hill on air" more than a thousand times. Sometimes they glided as much as six hundred feet. A simple assistant amused them by asking them to put a coat of feathers on the glider to make it stay up longer. These glides taught them much that they needed to know about steering an airplane.

The Wrights also learned from the buzzards and hawks. Wilbur Wright wrote that their soaring showed "marvelous skill." He said the soaring problem was not so much one of better wings as of better pilots. He studied the birds as wonderful pilots of their own airplanes.

A Needed Improvement in the Airplane

Gliders and airplanes have two rudders, one an upright rudder, to steer them right or left, and one a horizontal rudder to steer them up or down. These two rudders were for some time thought to be all that were needed. Practice in gliding taught the Wrights that another rudder was necessary; for sometimes the moving gliders would start to roll over sidewise.

The Wrights invented a third rudder to control the

rolling movement of the plane. The pilot of earlier gliders had to lean from side to side to keep them balanced. The Wrights found that it was dangerous to depend on the pilot. They invented what really serves the purpose of two side rudders. Either a change in the slant of the wing, or two little extra side wings, serve as the new rudders to keep the airplane from rolling. Orville Wright says that he and Wilbur invented this new "system of control used in all flying machines to-day."

The First Flight of Its Kind

Few have realized how hard the Wrights worked at Kitty Hawk for parts of four years. Successful flying would not have been possible without the gasoline engine. That had already been invented and was used in automobiles. But the Wrights were good enough mechanics to make their own gasoline motor to suit the airplane which they built at their shop in Dayton, Ohio.

On December 17, 1903, at Kitty Hawk, Orville Wright started in their heavier-than-air machine. It rose into the air by its own power in the teeth of a twenty-seven-mile-an-hour wind, and flew for 120 feet before it came to earth, unharmed. This was the first time in the history of the world in which a machine (1) heavier than air, (2) piloted by a man,

(3) raised itself by its own power, (4) went ahead without reducing speed, and (5) landed at a point as high as that from which it started.

There were on that day three more flights, each an improvement over the one before it. Wilbur was the



THE FIRST WRIGHT POWER-DRIVEN AIRPLANE

This machine is now exhibited in a science museum in London, England.

pilot in the last flight, which covered 852 feet. While he and his brother were talking over this flight, a gust of wind blew the machine over and over like a hat. The machine was so badly damaged that no more flights were possible until the spring of 1904.

Wilbur Wright went to an aviation meet in France (1908) and won the prize of four thousand dollars in a contest with the greatest flyers in the world. He beat all the world's previous records for speed and for the time of staying in the air. He was a very silent man.

When people asked him why he did not talk more about his record, he replied: "The only birds that talk are parrots, and they are not birds of high flight." In one of the large cities of France there is a beautiful statue of Wilbur Wright as "Conqueror of the Air."

While Wilbur was in France, Orville won a contest to furnish a plane for the United States Army.

The 1928 Celebration

The United States Congress sent a committee to Kitty Hawk, December 17, 1928, to celebrate the twenty-fifth anniversary of the world's first successful airplane flight. Representatives from nearly all the civilized nations of the world were present. Orville Wright was one of the company, but his brother Wilbur had died in 1912.

President Coolidge made an address in which he said: "Twenty-five years ago at Kitty Hawk, North Carolina, occurred an event of tremendous significance. It was the first extended flight ever made by man in a power-driven, heavier-than-air machine.

"The nineteenth century was the railroad and steam-boat age. The twentieth century will be known for the development of aëronautics and air transport.

"In the early days it took six months to go from Missouri to the Pacific Coast. An airplane has traveled across the continent in less than twenty-four hours."

The committee from Congress laid on top of Kill Devil Hill the cornerstone of a proposed monument to Wilbur and Orville Wright. Another memorial was placed on the spot where the Wrights started their successful flight, December 17, 1903. We should note that this new age is giving monuments to others than war heroes.

Charles A. Lindbergh

Charles A. Lindbergh was born (1902) in Detroit and taken in a month to the family home at Little Falls, Minnesota. He was brought up strictly, and he never used liquor or tobacco. His father was a lawyer and for ten years a member of the national House of Representatives. Charles graduated at the Little Falls High School and studied mechanical engineering for two years at the University of Wisconsin.

He had the pleasure of taking his father, then a candidate for governor of Minnesota, from town to town in an airplane to make speeches. The father died three years before Charles became famous, but he had the chance to see what a skillful flyer his son was.

Charles learned to be an expert flyer both by his own practice and by studying in an army aviation school near San Antonio, Texas. He later became a night flyer on the regular airplane mail route between St. Louis and Chicago. When he thought that he had

had enough of this regular flying, he planned to fly across the Atlantic Ocean.

He went to San Diego (dê-ā'gō), California, and had an airplane built for the transatlantic trip. He made the 2500-mile flight from San Diego to St. Louis in seventeen hours. This was then the longest nonstop flight ever made by a man alone. His plane was named "Spirit of St. Louis," for friends in St. Louis had encouraged him and supplied him with the necessary money for his great undertaking.

His Flight

The "Spirit of St. Louis," in which he flew from the United States to France, was forty-six feet between the tips of its wings, thirty-four feet long, and weighed five thousand pounds with its four hundred fifty gallons of gasoline. The plane had only one motor.

When Lindbergh, only twenty-five years old, started alone in his airplane on the morning of May 20, 1927, the whole country was aroused. That night when he was alone over the ocean, where no one could help him, forty thousand people had gathered in New York to see a prize fight. The announcer came forward and said: "Let us stand for a moment in silent prayer for Charlie Lindbergh." The forty thousand rose and stood with bowed heads. There were a few in that vast crowd who knew this verse in the *Psalms*:

"If I take the wings of the morning and fly to the uttermost parts of the sea." They prayed silently that the following verse might be true in Lindbergh's case.

At a quarter before nine o'clock that Friday night he passed over Newfoundland, into the blackness of the North Atlantic. Clear weather had been the forecast, but he faced a thousand miles of storm. He heard the sleet, like the voice of death, rattling on the wings of his plane. He rose ten thousand feet to try to escape it.

He had slept only two hours the night before he started, and many feared that he could not keep awake. Some who knew that he had taken only two sandwiches and a bottle of water for his voyage across the Atlantic wondered what Columbus would have said about such preparation for this trip. People remembered that two famous French flyers had started to cross the ocean only a few weeks before and had never been heard from after beginning their trip.

Lindbergh knew that to waste his gasoline by flying out of his course meant death. No homing pigeon ever flew more directly to its goal. In spite of sleet and fog, he passed over the coast of Ireland only three miles away from his reckoning.

His silver-gray plane descended on the field at Paris, France, at 10:20 Saturday night. He had been flying

alone for thirty-three and one third hours. He had made the first nonstop flight from the United States to the continent of Europe. Fifty thousand people were at the field at Paris to greet him. No king ever drew greater crowds to see him than Lindbergh during his two weeks' stay in Europe.

His Unusual Success

He came back as the guest of the United States on the war cruiser *Memphis*, and was welcomed by President Coolidge and the American nation as the "American Columbus of the Air." Skill in flying, brains, and courage, not luck, had made him successful in his flight.

His dignity, modesty, and character have made him as famous as his flying. He won a prize of \$25,000 for making the first nonstop flight from the United States to Paris; but after paying the expenses of the flight he had little left. What a temptation it would have been to most young men to take the half million dollars offered him to appear in a show! He kept his dignity and would not take a cent for anything except for his service in flying and directing the work of others in that field.

While in Europe, he was really called on to play the part of a good-will ambassador of the United States. He made no mistakes. He caused Europe to feel more



LINDBERGH'S START ON HIS FLIGHT FROM NEW YORK TO PARIS

friendly toward our country. Soon he made a goodwill flight to the south, and our Spanish American



LINDBERGH CIRCLING ABOVE CROYDON FLYING FIELD, NEAR LONDON, ENGLAND

After visiting Paris, Lindbergh flew to England and to Belgium, where thousands greeted and cheered him.

neighbors received him with the same enthusiasm that Europe had shown him. Everywhere, too, at home and abroad, he aroused people's interest in conquering distance by flying.

THINGS TO DO

Tell the story of early attempts to make others understand at a distance.

Act some scene in the lives of Morse, Bell, Orville and Wilbur Wright, and Lindbergh. Be able to tell how each helped to conquer distance.

Read or ask your teacher to read to you the poem : *Darius Green and His Flying Machine*.

Collect pictures of Lindbergh and his flights.

Write a true story or a poem called *Lindbergh*.

The boys may make airplane models and explain to the class how the rudders work.

Draw a map of the North Carolina region where the Wrights went to fly.

SOME BOOKS THAT WILL HELP YOU

Bachman, F. P., *Great Inventors and Their Inventions*, Chapters XI, XII, XIII (Morse, Bell, Orville and Wilbur Wright).

Parkman, M. R., *Conquests of Invention*, 347-378 (Morse); 379-395 (Bell); 325-343 (Airplanes).

Darrow, F. L., *Thinkers and Doers*, Chapter XXIII.

Lindbergh, Col. Chas. A., *We* (The famous flier's own story of his life and his airplane, "Spirit of St. Louis").

REFERENCES FOR TEACHERS. — Thompson, H., *The Age of Invention (Chronicles of America)*; Iles, G., *Leading American Inventors*; Prime, S. I., *Life of S. F. B. Morse*; Kaempffert, W., *Popular History of American Invention*, Vol. I, Chap. III, Story of the Telegraph; Chap. IV, Story of the Telephone; Chap. V, Man Conquers the Air.



EDISON'S FIRST PHONOGRAPH ASTOUNDING THE LISTENERS

CHAPTER XIV

THOMAS A. EDISON (1847-)

MOST of us see and use every day some of the inventions that Thomas A. Edison has given to the world. He was born in the little town of Milan in northern Ohio. When he was seven, his family moved to Port Huron, Michigan. Here he went to school for three months. This was all the public schooling that he ever had. His teacher thought that he was not bright, so his mother took him home and taught him herself.

As a Newsboy

When Edison was twelve years old, he became a newsboy on the Grand Trunk Railroad between Port Huron and Detroit, a run of sixty-three miles. In April, 1862, he saw that the Civil War battle of Shiloh had

been fought with a loss of twenty-five thousand men. He rushed to the office of a Detroit newspaper and bought one thousand papers, most of them on credit. He sold them all on his run to Port Huron, some of them at twenty-five cents a copy. With this money, he started a laboratory in the unused part of the baggage car.

He bought a second-hand printing press and started a paper of his own, the *Weekly Herald*, which he printed on the train. The *London Times* said it was the first paper to be printed on a train in motion. The telegraphers along the line liked the boy and often gave him news, which he would print and offer at the next stop. He was not quite fifteen when he was the editor, typesetter, printer, and publisher of this paper. He usually sold more than four hundred copies a week and cleared twenty-five dollars a month.

Edison had six hours in Detroit each day before his train started back for Port Huron. He wanted to learn about all kinds of things, so he planned to read as many books as he could in the Detroit Public Library. He actually did read one solid nine-foot section of books.

He snatched a telegraph operator's son from under a train and was taught how to telegraph by the boy's grateful father. Edison was thus started on the road to one of his great inventions.

He often worked in his laboratory in the baggage car. One day a stick of phosphorus was jolted off the shelf and set the car on fire. The conductor rushed in and cuffed the boy over the ears so hard that he became nearly deaf. The conductor then threw out of the car the chemicals, batteries, and printing press. This was the end of printing the paper on the train.

Edison was an optimist. This means that he looked on the bright side of things. For instance, he once said that deafness helped him to improve the telephone so it could be heard distinctly. He took more comfort on noisy Broadway, New York, than a man who could hear well, because it seemed as quiet as the country. Once, however, his deafness came near costing him his life. After working a long time as a newsboy, he began to earn his living as a telegrapher. He was going to his room one morning at three o'clock, carrying a large package of second-hand books to read, when a bullet whizzed by his head. He had not heard a policeman order him to stop. "It is lucky for you that I am not a better marksman," said the policeman.

Becomes an Inventor

Edison had been a telegrapher for several years in the central West. At the age of twenty-one he came to the East, to try to get a position with the Western Union Telegraph Company. He happened to see in

New York what is now called a "stock ticker." He was studying it, when it suddenly stopped working. Three hundred brokers' boys came to see why the quotations had stopped. The man who attended to the machine could not find the trouble. Edison said: "I can find it." He did repair the stock ticker in a few minutes. The manager then offered him three hundred dollars a month as superintendent. Such a salary was almost beyond his dreams.

He always wished to earn more than he was paid. This desire was one of the secrets of his early success. He often worked twenty hours a day at his new job. He made almost a new machine of the ticker. He was paid \$40,000 for improving it.

He had been experimenting with electricity ever since he was a boy. Telegraph lines were becoming overcrowded with messages. It was very expensive to build new lines. Edison studied the problem. He said to himself: "I wonder if I cannot send four messages, two from each end, at the same instant over the same wire." Many said this was impossible, but he succeeded.

He patented this way of sending "quadruplex" messages, that is, two from opposite ends of the same wire at the same time. He received only \$30,000 for this invention. It has already saved the world tens of millions of dollars.

How He Improved the Telephone

We have seen (p. 265) that the telephone was the wonderful invention of Alexander Graham Bell. The Bell telephone was not distinct enough to be heard farther than a few miles. We now speak into a receiver and listen with the telephone at the ear. Bell had only the ear telephone. When speaking, one had to move the telephone from the ear to the mouth.

Edison improved the telephone so that the voice could be heard distinctly, and he made it possible for the long-distance telephone to be used. On account of his deafness he was sure that others could hear if he could. He also invented the transmitter or sender of the voice, which is now different from the receiver. Modern telephoning would not be possible without Edison's improvements.

Edison asked a company what it would give him for his invention making the telephone a commercial success. "One hundred thousand dollars" was the prompt reply.

Edison's answer was: "I accept the \$100,000 on one condition: that you do not pay it all at once, but pay me at the rate of \$6000 a year for seventeen years, — the life of the patent."

He gave this reason for his suggestion: "I knew that I would soon spend this money experimenting if I got

it all at once. I saved seventeen years of worry by this stroke." If you had been by Edison's side, perhaps you would have whispered in his ear: "Please take the \$100,000. Then lend it or invest it yourself at six per cent. You will then get \$6000 a year. At the end of seventeen years, you will also have your \$100,000."

The buyer of that patent made one of the best bargains in American history. Perhaps only one better was ever made in New York. That was when the Dutch bought Manhattan Island from the Indians for \$24.

The Wizard

In 1877 Edison invented the phonograph. This more than anything else made people call him "the Wizard."

When he was at work on another invention, he heard a musical sound. Then his imagination took one of the longest leaps on record. He wrote: "I shall be able to store up and reproduce the human voice at any future time." He had a model made and wrapped a sheet of tin foil on the cylinder. He fixed a mouth-piece, and turned the cylinder as he said:

"Mary had a little lamb;
Its fleece was white as snow."

Then he turned the cylinder again, after adjusting the reproducing part. A voice from the phonograph answered softly:

"Mary had a little lamb ;
Its fleece was white as snow."

This seemed the work of magic. For some time people thought the machine was a piece of trickery.



EDISON AND HIS FIRST PHONOGRAPH

The early records for phonographs were hollow cylinders.

A Frenchman in Paris said he was sure a ventriloquist was throwing his voice into the phonograph. A

clergyman in the United States spoke into the mouth-piece a string of Biblical names as fast as he could talk. The machine gave them back to him just as fast. "I am satisfied now," he said. "No other person can recite that list of names so fast."

Edison could not hear his phonograph three feet distant, and people wondered how he could detect any lisp or other delicate imperfection of sound in the instrument. He said: "I hear through my teeth and through my skull. Ordinarily I merely place my head against a phonograph. But if there is some faint sound that I don't quite catch this way, I bite into the wood, and then I get it good and strong."

Phonographic records of some voices are now filed away for future generations in the large libraries of the United States.

Early Lighting

Three hundred years ago rush lights were commonly used. These were made from the pith of the rush plant, soaked in oil or coated with wax. There were then no street lamps. Early American homes were lighted by the fireplace and candles. The kerosene lamp and gas made from coal followed.

In our Centennial Exposition, celebrating the hundredth year of our independence (1876), there were brilliant electric arc lights. Two of them were power-

ful enough to light a block from street to street. Their brightness dazzled the eye. There were then no small electric lights such as we have in our homes.

Great scientists said that the electric current could not be divided so as to make small and pleasant lights. Edison replied: "I shall set myself the problem of dividing the electric light current just as the large tanks of gas have been piped to burn in small jets. I shall replace gaslight by electric light."

Every successful light had been open to the air. The fireplace, candle, lamp, and electric arc light needed air. Scientists said that a light would not burn unless it was fed with the oxygen in the air. Edison determined to make a light in a vacuum or empty space. He improved the air pump so that he could draw nearly all the air from a glass bulb. His next step was to try to find something that would glow in the bulb when an electric current was passed through it. His aim was to make an incandescent (glowing) light. The firefly glows but does not burn.

Edison used platinum wire, but it melted. He worked night and day for thirteen months to get something that would not melt. He tested the fibers of as many as six thousand different vegetable growths. He sent for a spool of sewing thread. He cut off two inches and baked it in the form of a hairpin. The baked (charred) or carbonized thread broke when he

tried to put it into the glass bulb. He kept on trying for two nights and a day. Once when he had the baked thread in place, a man breathed on it and broke it. Finally a carbonized thread was fixed in the bulb, the



Courtesy of General Electric Co

EDISON WATCHING THE GLOWING THREAD IN THE FIRST
PRACTICAL INCANDESCENT LAMP

From the original painting by H. M. Mott-Smith.

air drawn out, and the bulb sealed. The electric current was turned on strong enough to melt platinum wire, and the thread glowed. It gave a bright light for more than forty hours. Edison had learned how to produce an incandescent electric light.

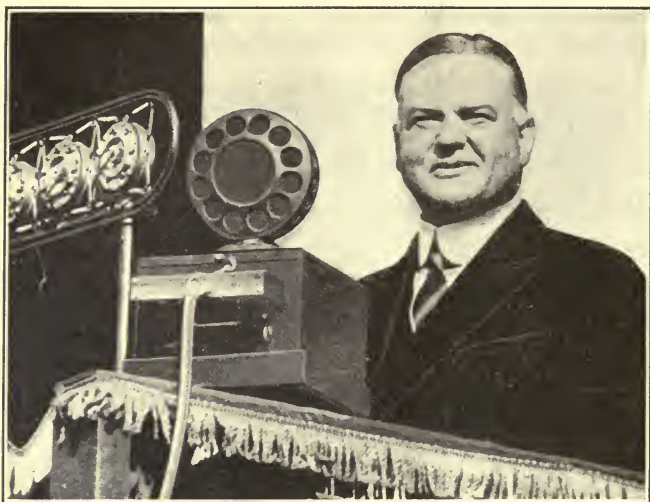
Edison knew that for general use he must find something that would burn longer than forty hours. He finally chose the bamboo fiber as the best. He found 1200 different varieties of bamboo listed. To discover the best bamboo fiber, he sent men to Japan, South America, and around the world.

In addition to his own time, Edison spent \$100,000 on the incandescent electric light. He was not the first to think of such a light, but he was the first to make it a success. He had to fight in court for fourteen years for the right to his invention, which was patented in 1880. The patent had but three more years to run when a court finally upheld it.

For nearly nine years all the millions of Edison lamps were made with the bamboo fiber. After a while, tung'sten, a metal unknown before 1870, took its place. To-day a large part of the world is lighted with Edison's invention.

Neither Morse nor Edison invented wireless or radio telegraphy. That was the work of Marco'ni, a young Italian. This invention was perfected so that in the first few years of the twentieth century radio messages

were sent across the ocean and from one ship to another or to the shore.



PRESIDENT HOOVER BROADCASTING A SPEECH

Public speeches have been broadcast widely since about 1925.

Edison's Importance

Edison had a laboratory for working on all kinds of needed inventions, and he had a large number of men to assist him. In three years he took out two hundred fifty-eight patents. The total number of his patents is not far below fifteen hundred.

Edison did not invent the moving picture, but he improved it and helped make it what it is to-day. He gave the world more inventions than it can remember.

He has often been called the most useful man of his time.

A writer said (1923): "There is one human brain that has a cash value of fifteen billion dollars. The brain is that of Thomas Alva Edison." That writer meant that all the money invested in companies based either entirely or in part on Edison's inventions, equals fifteen billions. Much more important than this vast sum is the fact that Edison has added to the convenience and pleasure of the world in many ways. The most important of these are the incandescent light, the phonograph, better moving pictures, and a more usable telephone.

How Inventions Have Changed Our Dependence on Each Other

You may now ask: Have all the inventions we have studied made us more or less dependent on others?

Benjamin Franklin first discovered (1752) that electricity is the force in lightning. Electricity had not then been used in the service of man. It now serves him in telegraphing, telephoning, starting automobiles, lighting buildings and streets, and furnishing power for almost any purpose, from working a dentist's drill to pulling a train of cars. You might conclude that this servant and the inventions you have studied have made us less dependent on others. Let us see.

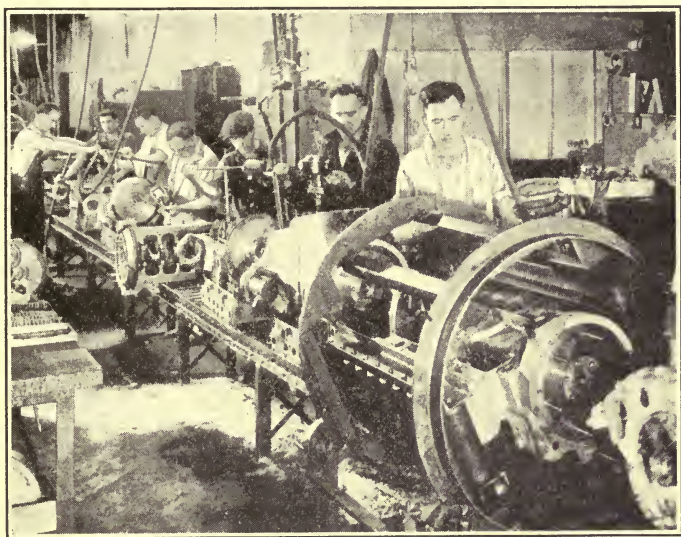
Before the English colonists in America declared their independence, they made most of the things that they used. They built their own homes, raised their own food, and made their own clothes, mostly from the fibers of flax which they grew themselves, and from the wool on the backs of their sheep.

Suppose a man who lived in 1776 could now return to earth and visit an automobile factory that makes a million machines a year. He could follow the making of an automobile step by step. He would notice that each man kept repeating the same act on the same part of different machines that passed rapidly before him. The man might put bolts in one part of many machines. The next man might do nothing but fasten nuts on these bolts. Hundreds of men would assist in making one automobile.

One fact that we might overlook would startle him. He might exclaim: "Everybody in this factory is dependent on somebody else! In 1776 one man would have made a whole wagon. You say that there is only one man at the head of this factory and that everybody else is under him. In 1776 most men were farmers with nobody over them. Where is the independence that we fought for?"

We reply that the new inventions do make men more dependent on each other. Inventions have brought men from the farm to work in large factories

on one part of some job. The automobile cannot be made in a home or by one blacksmith in a small shop. Expensive machinery is needed in factories where many can use it. One man must be expert in working



Ewing Galloway

ASSEMBLING ENGINES IN A MOTOR FACTORY

The unfinished engine moves along an endless belt, slowly passing the men while they work on it.

a lathe ; another must know how to weld metals. The man in the office dictates letters to try to sell the automobiles. His stenographer typewrites these letters. Every one of these four people is dependent on the rest. The work would be poorly done if each tried to do it all.

Do we wish to give up the railroad? If not, we must be dependent on those who furnish millions of dollars to build the track and make the locomotives and cars. We need the engineer, fireman, and those who look after the track every day. Are we willing to give up the telegraph and the telephone? If not, many thousands of poles must be set and strung with wires and kept in order, and many people must take care of our calls.

If we want the conveniences of the new inventions, we cannot have the old-time independence. Probably no one of us would like to give up these conveniences and go back to the time when each home did almost everything for itself. If we ran out of soap, for instance, we should have to stop to make it or do as the man mentioned on page 109 did when he was baking bread. It is easier to turn on the electric light than to mould candles.

Some dependence on others is really desirable if all of us will behave ourselves and try to do our best for each other. Then we shall have more good things than we could get for ourselves.

Why Nations Also Have Become More Dependent on Each Other

Trade between nations has made them more dependent on each other. Europe needs our cotton for

her factories. We could not have rubber for our automobile tires if we did not get it from foreign lands.

The increase in knowledge and invention has made nations less independent of each other. The world uses the anæsthetics which Americans found to make surgery painless. France was so grateful for the work of Morse in inventing the telegraph that she raised a large purse for him (p. 262). The cotton clothing of the world is cheaper because Whitney invented the cotton gin. Most countries use Bell's telephone and Edison's electric light and phonograph.

But we did not do everything. George Stephenson, an Englishman, invented the first locomotive. The lives of many Americans are now saved because the Frenchman Louis Pasteur (pàs-tûr') taught them how to protect themselves from germs. To-day we often Pasteurize our milk. Marconi, an Italian, gave us the radio. We use the wonderful dyes which the Germans first made. For improvements of many kinds, the world is dependent on the help of all the nations.

THINGS TO DO

Define an "optimist." What showed that Edison was one?

Explain why Edison was called a "wizard."

Tell the story of Edison's work with the incandescent light.

Be ready to talk to the class for four minutes on Edison's service to the world.

Are there any events in this chapter from which you could make a little Edison play? If not, ask your teacher to read to you more about Edison and then write your play.

Make a list of the inventions about which you have read in this book. Why have they made us more dependent on others?

Figure out, the best you can, the number of people on whose work you are dependent. Does it make you feel any differently when you realize that all these people are working for you?

SOME BOOKS THAT WILL HELP YOU

Meadowcroft, W. H., *Boys' Life of Edison*.

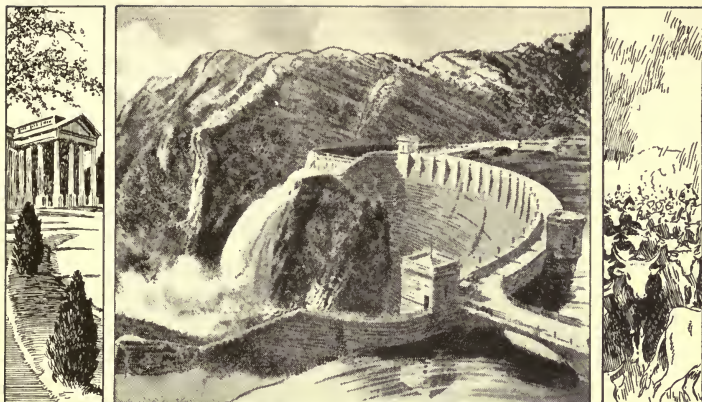
Bachman, F. P., *Great Inventors and Their Inventions*, 247-253.

McFee, I. N., *Story of Thomas A. Edison*.

Perry, F. M., *Four American Inventors*, 205-260.

Parkman, M. R., *Conquests of Invention*, 158-185.

REFERENCES FOR TEACHERS. — Bryan, G. S., *Edison the Man*; Thompson, H., *The Age of Invention (Chronicles of America)*, 203-216; Kaempffert, W., *Popular History of American Invention*.



ROOSEVELT DAM

CHAPTER XV

THEODORE ROOSEVELT (1858-1919)

THE life of Theodore Roosevelt (rō'zē-vělt) covers one of the greatest ages in human history. He could remember when Lincoln died, and he lived to see the ending of the World War. The railroad reached only to the Missouri River (1859) the year after his birth. He could remember when the railroad first crossed the continent to the Pacific. He saw the coming of most of the inventions described in the last three chapters, — of the new giant steel mills, the telephone, the automobile, the electric light, and the airplane. While he was living, the United States became the greatest farming and manufacturing nation in the world.

On his father's side, Theodore Roosevelt was

*Brown Bros.*

ROOSEVELT'S BIRTHPLACE, NEW YORK

Roosevelt House is now the headquarters of the
Roosevelt Memorial Association.

descended from the early Dutch settlers of New York. His grandfather when a small boy showed the Roosevelt love of action and daring. After hearing two long sermons on the strict Dutch Sunday in New York, this

boy dashed home without waiting for his parents. On the way, he saw some pigs. In those days, even in a city, pigs were commonly allowed to run loose. He jumped on the back of one that looked as if it could take him home in a hurry. It turned and ran toward the church, passing through the midst of the "outraged" congregation.

Theodore Roosevelt, the grandson of the hero of that ride, was born in the city of New York, in a home where there was every comfort. It would be hard to imagine two birthplaces more unlike than those of Lincoln and Roosevelt. Lincoln was a strong boy, but the boy Roosevelt seldom lived more than ten days without any sickness. He suffered from asthma so much that he often had to sleep sitting in a chair. He was so weak that his younger brother had to protect him from bullies.

His Reading

Theodore read as many books as ten average boys. Stories of heroes thrilled him and started him on the road to greatness. He found his heroes in tales of adventure and ballads and other poetry. He specially liked Longfellow's poem *The Saga of King Olaf*, which begins with *The Challenge of Thor*. The Norse myths tell how Thor, the god of thunder, put on a belt that doubled his strength and how he used a magic hammer to kill the frost giants and other evil beings. Young

Theodore dreamed of getting that belt and hurling that hammer. We shall soon see how his dream came true.

Tries to Win Health

His father had said to him: "Theodore, you have the mind, but you haven't the body." Theodore determined to get Thor's strength. At Harvard College he wrestled, boxed, rowed, ran, and worked in the gymnasium, besides keeping up his studies. He graduated with honor.

Roosevelt thought that life in the open would improve his health, so he went to the southwestern part of North Dakota and bought a ranch (1883) on the Little Missouri River. The next year he bought another ranch and put eleven hundred head of cattle on it. This number was increased to thirty-five hundred.

Cattle raising became a real business with Roosevelt. One of the important industries of the United States was raising cattle on the prairies and wild land in the West. We may learn much about this from Roosevelt's life on his ranches (from 1883 to 1889). For six years he spent the greater part of each year in the West.

Becomes a Cowboy

Roosevelt could say to a newspaper reporter: "I am a regular cowboy, dress and all. I can shoot, ride, and drive in the round-up with the best of them."

Let us remember that cowboys were the fences for the cattle, which had to be watched day and night to be kept from straying away or being stolen. Roosevelt



ROOSEVELT AS A COWBOY

took his orders from the ranch captain, the same as any other cowboy.

One night the captain ordered: "All hands out." A heavy storm came up and made the frightened cattle run. Roosevelt plunged among them to try to head

off the leaders. He could see nothing but dim forms of animals running on all sides of him. A lightning flash over the center of the herd divided it into two parts that dashed away into the darkness. He heard a splash. The next moment he and his horse plunged over the bank into the Little Missouri River among the cattle. They gained the other bank, and he tried to head off that section of the herd. His horse stumbled and threw him twice, but he mounted again and kept up the chase. A cowboy came to him, saying: "My horse was killed by running into a tree in the dark. I just missed being killed myself."

When the dawn came, Roosevelt began rounding up the stray cattle. He had been in the saddle forty hours before he finished his part of the work. He was usually in the saddle from dawn to dusk, herding cattle or breaking ponies.

After a while men found that they lost money by raising cattle in that part of the country. Roosevelt gave up his ranches after losing about twenty-four thousand dollars, but he had become a strong man.

His Many Changes of Title

The West left its lasting mark on Roosevelt. He learned how to deal with cowboys and others who earned their living, and they became his lifelong friends. Some of them quickly saw that Roosevelt was an

unusual man and said to him: "You will be President some day." Roosevelt needed this knowledge of common men when he returned East and became president of the New York Board of Police Commissioners for two years.

Of all our Presidents, Roosevelt holds the record for important changes of title before he was forty-five years old. At the beginning of the Spanish American War (1898), his title was Assistant Secretary of the Navy. This war was to make the United States a world power because it gave us the Phil'ippine Islands in the Pacific Ocean and Porto Rico (rē'kō) in the



ROOSEVELT AT SAN JUAN HILL, CUBA

In this battle of the Spanish American War Roosevelt led a regiment called the Rough Riders. They stormed the hill and took possession of it by hard fighting. This victory forced the Spaniards to give up an important part of Cuba.

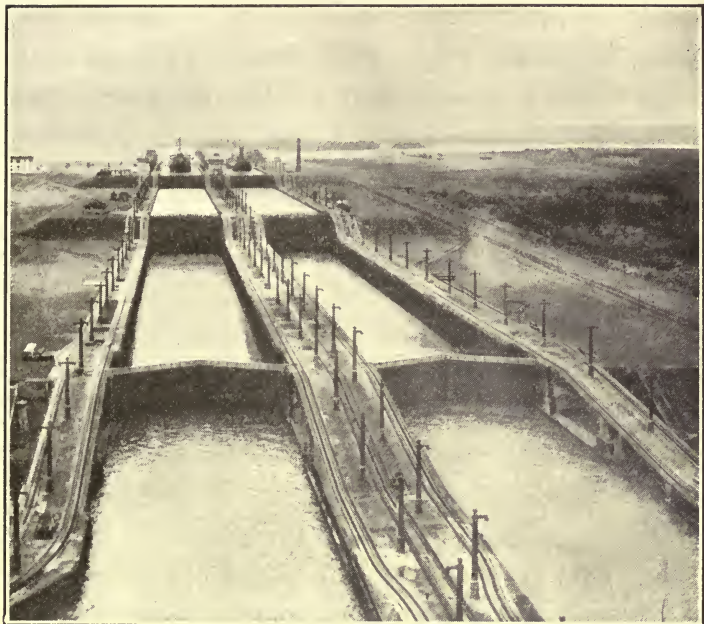
Caribbe'an Sea. Roosevelt had Admiral Dewey's fleet in the right place to use as the hammer to break the power of Spain in the Philippine Islands.

Roosevelt soon resigned from the Navy Department and raised a regiment of a thousand men, called the Rough Riders, selected from cowboys, college boys, and others. They could all shoot and ride, and they became the hammer with which he helped to drive the Spaniards out of their intrenchments in Cuba. Roosevelt's bravery won him the title of Colonel. His next title was Governor of New York, then Vice President of the United States.

His Work as President of the United States

In 1901 President McKinley was assassinated, and Roosevelt at the age of forty-two became the twenty-sixth President of the United States. In 1904 he was elected President in his own right. The prophecy of his ranch friends had come true.

As President, he was a good second to Thor in hammer-throwing. He threw the hammer at big business when he thought it was in the wrong. He helped to prevent the railroads from charging too high rates. He fought those interested in adulterating food and drugs. He secured a law ordering that the label describing the contents of a package must not be "false or misleading in any particular."

*Brown Bros.*

PART OF THE PANAMA CANAL — THE GATUN (gä-tōon') LOCKS

Former President Taft wrote: "If the name of the Panama Canal could be changed, it should be called the 'Theodore Roosevelt Canal.' It is due to him more than to any other man."

Panama was eager to sell to the United States for \$40,000,000 the right to build the canal. Panama was a state subject to Colombia, just as Texas had been subject to Mexico. The American people had looked with favor on the right of the people in Texas to

revolt or break away. Panama was now revolting from Colombia. Some called Roosevelt's hammer the "Big Stick." People said he was using the "Big Stick" in his messages to Colombia. He recognized Panama as an independent country and warned Colombia not to use force against it. As a result, the canal was built for the good of the world and opened to ships in 1914.

One of Roosevelt's hardest fights was to save the nation's timber, oil, land, and water power from falling into the hands of a few men. He wished to have all the people profit by them. Those who wanted to grab at once sixteen million acres of choice timber fought him at every turn, but he won with his hammer. He saved for the public nearly 250,000,000 acres of land that had coal, oil, water power, or timber. This was an area nearly one eighth as large as the entire United States. All former Presidents taken together had not saved so many as the 148,000,000 acres of forest land which Roosevelt kept for the public good.

He knew how necessary irrigation is for the almost rainless parts of the West, and he fought to have drainage lands and streams saved from men who wanted them for their own profit. He had seen lands that seemed worthless become as fertile as any in the country when they were irrigated. The Roosevelt Dam in Arizona is a monument to his interest in irrigation.

The water, dammed up by a wall two hundred eighty feet high, makes a large lake. It irrigates more than 200,000 acres.

Roosevelt's Influence on the Nation

Roosevelt kept the country wide awake while he was President. People were disappointed if he did not give them something like an electric shock once a week. "Strenuous," was a favorite word with him. He was strenuous himself and he made the nation strenuous. He loved to do big things, so he urged the United States to construct the Panama Canal. He hunted for jobs. Russia and Japan had been at war. He persuaded them to send their representatives to Portsmouth, New Hampshire, to make peace.

He made the young want to become doers of great deeds. He taught them to try their utmost to do more than they had ever done before.

He preached the square deal for everybody. He wanted fairness for the poor as well as for the rich. An Irishman who worked to elect Roosevelt to the New York state legislature, said: "Roosevelt knew no fear except the fear of doing wrong."

He made many people happier by showing them how to become interested in more things. The changes which he brought into his life were a lesson to those who did nothing but trot around in the same peck measure

of their daily work. He worked harder than such people and yet found time to do many interesting things. He studied natural history, traveled, wrote books, hunted grizzly bears in the far West, and shot lions in Africa.

Sympathy with Human Beings

Roosevelt mixed with all classes of people. He shared the lives of the ranchers and understood them.



ROOSEVELT AND A GROUP OF TENEMENT CHILDREN

He had these cowboys dine with him at the White House, along with foreign ministers and members of his cabinet.

He loved children and tried to relieve their suffering in the crowded New York tenements. He warned a policeman twice that he would be discharged if he drank any more. The policeman repeated the offense and was told to leave. But he knew Roosevelt's weakness, so he borrowed some little children who came in with him. Roosevelt thought they belonged to the policeman and gave him another chance.

Roosevelt was really a social worker when he was Police Commissioner in New York. A social worker is one who tries to improve the condition of the people. He saw the need of more playgrounds in the poorer quarters of the city. He closed some of the worst lodging houses that dragged men down and made them criminals. It was Roosevelt's sympathy with plain people that caused them to follow him in larger numbers than any other President since Lincoln. "Each for all, and all for each," was a favorite saying of Roosevelt's.

When Theodore Roosevelt died (1919), Ex-President Taft said: "The nation has lost the most commanding, the most original, the most interesting, and the most brilliant personality in American public life since Lincoln."

THINGS TO DO

Ask the teacher to read to you selections from *Theodore Roosevelt's Diaries of Boyhood and Youth* and from *Roosevelt's Letters to his Children*. Ask her also to read to you

the story of Thor from Guerber's *Myths of Northern Lands*.

Try to dramatize a scene showing Roosevelt's life on a ranch. Ask the teacher to read to you, or read yourself, Chapters VI, VII, VIII of Hagedorn's *Boys' Life of Roosevelt*, or from Roosevelt's *Autobiography*, Chapter IV, "In Cowboy Land."

Give some of the ways in which Roosevelt followed Thor in hammer throwing.

Be able to talk for two minutes on how Roosevelt influenced our nation.

Tell how Roosevelt showed that he had sympathy with human beings.

SOME BOOKS THAT WILL HELP YOU

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THE PEACE CONFERENCE AT PARIS, AFTER THE WORLD WAR

CHAPTER XVI

WOODROW WILSON AND THE WORLD WAR

Early Childhood

WOODROW WILSON (1856-1921) was born in Staunton (stăn'tun), Virginia. His full name was Thomas Woodrow Wilson. Both of his parents were children of Presbyterian ministers. His father was tall and handsome, and was a minister, too. He could preach sermons that people liked to hear. He became pastor of the Presbyterian church in Augusta, Georgia. Woodrow Wilson later wrote : "My earliest recollection is of standing at my father's gateway in Augusta, Georgia, when I was four years old and hearing some one say that Mr. Lincoln was elected and there was to be war."

He heard his father dismiss the church before service one Sunday morning to allow the congregation to go to a factory to make ammunition for the Southern soldiers. The son's ideas of war did not come from seeing soldiers in fine uniforms, marching behind a band playing lively airs. His father's church became a hospital for wounded soldiers. The boy saw helpless cripples suffering and dying. What he saw did not make him love war. He may perhaps be known to the end of time for his efforts to prevent war.

Woodrow Wilson's father read many books to him and also taught him to read. The first book that he read by himself was Weems's *Life of Washington*, which Abraham Lincoln had enjoyed. The boy also read Indian stories, such as *The Last of the Mohicans*, by the American author James Fenimore Cooper.

He liked to act what he read. Cooper's tales led him and his cousin to stain their hands, arms, and faces with pokeberry juice and to put turkey feathers in their hair. They practiced war whoops and pretended to take scalps. They were then ready to play the part of Indians on the warpath. They sometimes lay in ambush in the pine woods and waited for victims. When they saw children on the road, they would sound a war whoop and give chase. The children would drop whatever they were carrying and take to their heels.

How His Father Taught Him to Use English

Woodrow Wilson's father had the boy talk about what he had read and try to give in his own words what the author had written. We have seen (p. 32) that Benjamin Franklin taught himself English in much the same way. The boy was sent on the run for the



WILSON'S FATHER TAUGHT HIM TO LOOK UP WORDS WHEN
HE WAS DOUBTFUL OF THEIR MEANING

dictionary if he did not know the exact meaning of any word that he read or used. What is the difference between being *proud* and being *fond* of some one? Woodrow's father was a master in using the right word to give his meaning. When some one asked him if he was not very *proud* of his son, he replied: "I am very *fond* of him." He used the right word to avoid

seeming to be conceited about his own child. He watched to keep his son from using any word which did not fit the idea.

Woodrow learned in this way how to use English that later charmed his classes, won the praise of his country, and, as we shall soon see, helped to win the World War.

At Princeton

Woodrow Wilson went to Prince'ton University, where he paid special attention to writing and debating. His marks were lowest in mathematics and highest in English composition. He became managing editor of the college paper and took a prize as a speaker and as a writer of essays.

He tried to fit himself to play a part in shaping the government of his country. He argued with his classmates about questions that came before the Senate of the United States. When there was not time for him to talk as long as he wished, he often said: "When I meet you in the Senate, I'll argue that out with you." In his day dreams he was a senator, and he tried to prepare himself for that office. While he was in Princeton, he spurred himself on by writing his name on cards in this way:

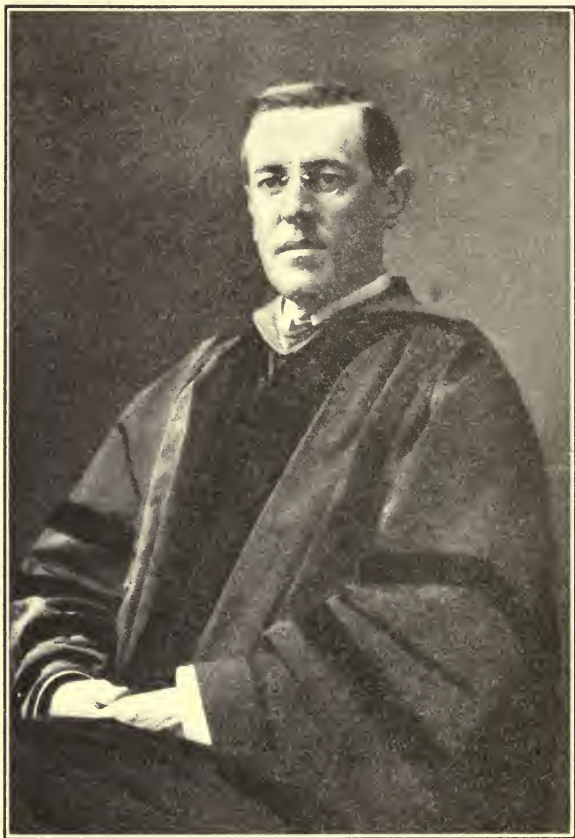
Thomas Woodrow Wilson
Senator from Virginia

After putting himself on record as a future senator, he felt that he had to make good. The young people of that time read in the *Essays* of the American writer Ralph Waldo Emerson: "Hitch your wagon to a star." Before Wilson left Princeton, he and a classmate made a solemn agreement that each would try to reach the stars along the path of public life. This classmate became a lawyer; in time he was elected mayor of his city, and later a member of Congress.

On the Way to the Stars

Woodrow Wilson dropped his first name, which had led to his being called "Tommy." He studied law at the University of Virginia, but practiced for only a very short time. He next took the degree of Doctor of Philosophy at Johns Hopkins University in Baltimore. He soon began to be known for both his writing and speaking, but it was his writing that first made him famous and started him on the path toward the stars. He taught for two years at Bryn Mawr (brĭn-mär') College near Philadelphia, and for two more at Wesleyan University, Middletown, Connecticut. Once, at a football game there, he saw Lehigh University score two easy touchdowns against the Wesleyan team. He sprang out in front of the bleachers, led the rooting, and helped save the team from defeat.

Wilson next became professor at Princeton, where he



WOODROW WILSON

held the students with his interesting, scholarly lectures. Four times the senior class voted him the most popular man in the faculty.

After he had taught for twelve years in Princeton, he

took another step toward the stars by becoming president of Princeton University. He held this position for eight years. He thus spent twenty years of the prime of his life in the service of Princeton.

Then he was nominated and elected governor of New Jersey. This governorship led to Wilson's nomination for the presidency of the United States. He was elected and became the twenty-eighth President. He served for two terms (1913-1921). He had hitched his wagon to the star that took him past the Senate, the first object of his dreams, to the presidency of the United States.

How the World War Began

The coming of the World War proves the truth of something that we learned in Chapter XIV. We saw there (p. 299) that inventions and trade have made the nations more dependent on each other.

The World War began in this way: A native of Serbia, a small country in southeastern Europe, killed the heir to the Austrian throne (1914). The punishment for this crime seemed a matter for Serbia and Austria to settle between themselves. But Russia said to Austria: "If you send soldiers into Serbia, we shall at once send our army to attack you." Germany said to Russia: "Stop your preparations for war and begin to disband your army in twelve hours,

or we shall declare war on you." France said to Russia: "If Germany fights you, we shall help you." Great Britain said to France: "We shall come to your aid if the German army passes through Belgium to set foot on your soil." The United States said: "We are so far away that we shall take no part in the war. We shall be equally friendly to all warring nations."

The United States started shiploads of wheat and flour to Germany. The warships of Great Britain were masters of the sea and they took our vessels into British ports. Great Britain determined to win the war by cutting off all supplies for Germany; but she was careful to pay for all the goods that she took from our ships.

Germany struck back by using her submarines to sink ships going to Great Britain. The rules of modern warfare gave German submarines no right to sink any ships except those that were armed or used for war, without first saving the people on board. But Germany said that she would use her submarines to sink ships going to Great Britain so long as Great Britain kept seizing foodstuffs on their way to Germany. She actually did sink ships carrying Americans.

The United States in the World War

The United States warned Germany that war would be declared if her submarines took more American lives.

After her submarines had destroyed a number of other vessels in which Americans lost their lives, the United States followed Wilson's advice and declared war against Germany (April 6, 1917) and, a few months later, against Austria.

Germany, Austria, Bulgaria, and Turkey were known as the Central Powers. They were waging war against Great Britain, Russia, France, Serbia, and Belgium. These nations were called the Allies. Before the war ended, most of the world was drawn into the contest. Italy, Japan, the United States, China, and fourteen other nations joined the Allies in the fight against the Central Powers.

The Constitution of the United States says that the President shall be commander in chief of the army and navy of the United States. This means that he shall select those who command them. Wilson chose able generals to lead our army in Europe. He also selected very capable men who freely gave their time to direct our different industries that were necessary for winning the war. For instance, Herbert Hoover, afterward President of the United States, was the World War food administrator, who saw that we raised and saved enough food to feed our army in Europe and many of the Allies. Wilson had on his hands the largest war in history. He had to see that billions of dollars were raised to pay for the expenses

of the war. At his request, Congress did not wait for men to offer to serve in our army. It passed a law to draft men between certain ages. Four million men were drafted to become soldiers. Two million of our young soldiers were sent abroad.



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SETTING-UP EXERCISES AT ONE OF OUR TRAINING CAMPS

This picture was taken during the World War.

More than a million of our men fought in one battle, called the Meuse-Argonne (mûz-ar-gôn') Offensive, for forty-seven days against the Germans. In that battle our soldiers used more ammunition than the Northern army used in the four years of the Civil War. Our brave men won this struggle, which ranks among the great battles of all time. Their victory helped the

Allies to end the World War. November 11, 1918, was the last day of that battle. On that day the Germans signed the armistice which stopped the war. Most of the states in our country have made November 11 a holiday. We call it Armistice Day.

Wilson's Two Kinds of Service

1. Woodrow Wilson saw that our army had enough material supplies: food, medicine, clothing, bullets, rifles, and machine guns. He arranged for sending ten thousand soldiers a day across the ocean.

2. Woodrow Wilson will be longest known for another and greater kind of service, which rifles and armies cannot perform. He used these weapons of the spirit: justice, kindness, sympathy, and the offer of lasting peace.

He sent airplanes over German trenches to scatter such messages as these:

"We are the sincere friends of the German people. We seek nothing for ourselves but what we shall wish to share with all free peoples."

"America offers to you peace and good will."

"We desire to make the world safe for those who wish to govern themselves."

"We shall do our best to see that a war like this can never again happen. This war will have been fought in vain if we do not."

It has been said that his words had more power to hasten peace than the skill of any allied general. The Germans asked: "Why should we fight longer? We wish the same things that Wilson does."

The League of Nations

The suffering and death caused by the World War made many eager to prevent future war. It was a common saying that this was a war to end war. Wilson and others drew up a plan for a League of Nations. The countries joining it agree on rules adopted by



THE COUNCIL OF FOUR IN PARIS

Brown Bros.

Lloyd George of England, Orlando of Italy, Clemenceau of France, and Wilson of the United States, who discussed together and decided the main terms of the treaty.

the League. These rules especially aim (1) to delay the beginning of war by a careful search into its causes; (2) to punish those who go to war without the permission of the League. All its members are forbidden to trade with the nation at fault or to furnish it money, food, or ammunition. The members of the League may even agree to use force to stop a war.

The League of Nations would not have been formed if Wilson had not himself gone to Paris, France, to take part in making the treaty of peace with Germany. In order to get the League formed, he was forced to vote for a treaty that did not give the conquered countries all that he had promised. He hoped the League of Nations would correct any wrong in the treaty.

After Wilson returned to the United States, he visited different cities to speak for the League of Nations. His efforts caused a stroke of paralysis which ended his active life. He fell while fighting to end war.

The United States did not join the League, because many feared that by it we might become entangled in the affairs of the Old World.

Wilson's Gift to the World

The failure of the United States to become a member of the League of Nations did not prevent other nations from joining it. Within ten years after its

formation, more than fifty nations became members of the League, — including all the leading nations of the world except the United States and Russia.

The debate in the United States over the League paved the way for the acceptance of the Kellogg-Briand (brê-än') Treaty to renounce war (1929). The United States, France, Great Britain, Germany, Russia, and nearly all other nations have signed this treaty and made a solemn pledge not to go to war to settle disputes with one another.

The League of Nations is Wilson's gift to the world. He won it with weapons of the spirit. If his struggles bring peace, the world will give him a lasting place beside its other heroes.

THINGS TO DO

Tell how Wilson learned about war.

How did his father teach him to use English?

Let two boys play the part of Woodrow Wilson and his classmate Charles Talcott, who made the agreement with him (p. 319). They talk with each other about what they would like to do after graduating.

Where did the star to which Wilson hitched his wagon take him? What had he done to make it easier for the star to pull him?

Give a short speech showing how the World War began and why the United States entered the war.

Explain Wilson's two kinds of service.

Chapters XI to XVI have told about important Presidents, generals, inventors, captains of industry, and airmen. The events, etc. in the first column below are given in the order in which they occurred. Match each with the right name in the second column.

- | | |
|--|-------------------------------------|
| 1. Vulcanization of rubber | <i>a.</i> Thomas A. Edison |
| 2. First electric telegraph | <i>b.</i> Charles A. Lindbergh |
| 3. New way of making steel | <i>c.</i> Theodore Roosevelt |
| 4. President of the United States during the Civil War | <i>d.</i> Woodrow Wilson |
| 5. Greatest Confederate general | <i>e.</i> Orville and Wilbur Wright |
| 6. Greatest Union general | <i>f.</i> Henry Ford |
| 7. Invention of the telephone | <i>g.</i> Charles Goodyear |
| 8. Incandescent electric light | <i>h.</i> Samuel F. B. Morse |
| 9. Giant steel mills | <i>i.</i> Abraham Lincoln |
| 10. First successful airplane flight | <i>j.</i> William Kelly |
| 11. Panama Canal begun | <i>k.</i> Robert E. Lee |
| 12. Automobiles made by the million | <i>l.</i> Andrew Carnegie |
| 13. President during the World War | <i>m.</i> Ulysses S. Grant |
| 14. First airplane flight across Atlantic to France | <i>n.</i> Alexander Graham Bell |

Tell the class why the League of Nations is called Wilson's greatest gift to the world.

How did Wilson use a weapon of the spirit? See if you can find when Abraham Lincoln and Theodore Roosevelt used such a weapon.

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RED CROSS NURSES MARCHING IN PARADE

CHAPTER XVII

THE WORLD GROWS KINDER

IN the last chapter we saw that the weapons of the spirit might end war more quickly than the rifle. We learned that kindness is a weapon of the spirit.

We now come face to face with three women whose chief weapon to make the world better was kindness. We shall see what victories they won in trying to give us a kinder world.

Dorothea Lynde Dix

The first of these women is Dorothea Dix (1802-1887), who was born in Maine soon after the beginning of the nineteenth century. She had such a hard childhood that she would never talk about it to any one. She never knew what it was to be a child and

play with other children. Her father would not stick at any kind of work. He roamed around like a gypsy. Dorothea never stayed long enough in one place to make friends in school or in church. At the age of twelve she went to the home of her grandmother in Boston.

Twelve-year-old Dorothea soon learned that teaching was the only fit work that a bright girl could then do outside her home. She tried hard to prepare herself for teaching, and at fourteen she became a teacher. She tried to make herself look older.

We have no youthful picture of Miss Dix, but her pupils said that she was handsome. She had "rich, wavy, dark brown hair." Her face was lighted "with soft blue-gray eyes." Her youthful cheeks glowed with color. Her well-shaped head matched her graceful neck. She had a pleasant voice.

Her Aims and Her Work

After a few years her health broke down from teaching, and her doctor forbade her to teach any more. She had made three rules for herself, as her aims in life: (1) to think of others first, (2) to search for those who needed help, and (3) to try to aid them. When she stopped teaching, she wondered how she could use these rules in her everyday life. She found a way. She happened to overhear two men talking of the

horrors of the jails and poorhouses. She at once (1841) went into a jail. She found so much suffering there that she spent the next two years visiting every jail and poorhouse in Massachusetts. She found insane persons thrown into prison cells and neglected—sometimes even chained and whipped for breaking prison rules. She sent the lawmakers an account of what she had seen. Massachusetts answered by enlarging the State Lunatic Hospital so that it would hold two hundred more insane patients.

The conditions in other states were much the same as those in Massachusetts. At the beginning of the nineteenth century the United States had only four insane asylums. Most of the insane were taken to poorhouses or to jails and shut up with criminals. Those who might have been cured were thrust in with the raving mad. Their nerves gave way, and they also became hopelessly insane. Those who were well when they entered often became insane from the horrors around them. Miss Dix determined to try to get the states to build insane asylums.

Her Struggles for the Helpless

The states which she visited were New Jersey, Indiana, Illinois, Kentucky, Tennessee, Missouri, Mississippi, Louisiana, Alabama, South Carolina, North Carolina, and Maryland. She spent more than nine

years and traveled more than ten thousand miles in the United States to plead with the lawmakers of these states to build insane asylums. Each of these asylums would cost in the money of to-day from \$100,000 to \$500,000. This expense meant that taxes would be higher and that many would be against her plan.

By telling what happened in Massachusetts, Miss Dix hoped to prove to other states that they needed insane asylums. She soon found that all states gave her the same answer: "Such things could not happen here." She had to visit the poorhouses and jails in every state where she made a plea for an insane asylum.

She won her battle in every one of the twelve states where she worked. Each state built an insane asylum. No such victory had ever been won before. Her victories may be called as great as those won on the battlefield in war, even though they were won with weapons of the spirit instead of with cannon.

We should remember that she also helped greatly to improve the condition of those in poorhouses and prisons. Her influence reached to foreign lands. Canada built three insane asylums, and far-off Japan, two. The busy British statesmen listened attentively when she told them of the horrors in pauper insane asylums in Great Britain. Victory followed her even there.

How She Won

Miss Dix did not shrink from hard and disagreeable work. Her journeys to poorhouses and prisons took her where there were no railroads. She went over roads so rough that the wagon broke down. She drove across rivers where parts of the wagon floated away.



DOROTHEA DIX

She had to carry with her a repair outfit of "hammer, wrench, nails, bolts, a coil of rope, and straps of stout leather."

She was able to get attention by telling what she had seen. One lawmaker declared he had positively made up his mind not to vote for an insane asylum.

She gave him the facts about his state. Finally, he said: "I cannot sleep if you tell me any more. No man who is not a brute can oppose you. I shall vote for the asylum."

Miss Dix might have known facts, and yet people would not have wished to listen to her, if her manner had not been agreeable. She was neither bold nor pushing. She seldom spoke before a whole body of lawmakers. She would find the best men in it and talk to them. Then she would try to speak privately with those who were opposed to her. She had a soft and gentle voice, and she never raised it even when angry.

People knew that she was unselfishly giving her life for those who could never repay her. She would not even allow an insane asylum to be named after her. She feared that people might think she was working to be honored.

Dorothea Dix is one of the heroines of the world. She helped it to grow kinder.

Florence Nightingale

The girls of the first year of one of the high schools in the United States were asked to vote for the women whom they most wished to be like. Florence Nightingale was their first choice. These high-school girls wished to be like her because they had learned of

her acts of kindness. They also knew why many in the United States honor her birthday every year.

The English honor George Washington as a hero of their race. We in turn call Florence Nightingale one of our heroines, although she was born in England.

Miss Nightingale (1820-1910) came from a wealthy family that owned two beautiful country homes and spent part of each year in London. As she stood on the lawn in front of one of these homes, she said to an American friend: "When I see that row of windows, I think how I should change the house into a hospital, and just how I should place the beds." This remark showed the great object of her life — to help the sick. Her resolve to become a nurse proved to be a blessing both to her own time and to the future.

The Lady with the Lamp

Great Britain was at war with Russia (1854). Nearly half of the British troops in Russia died in seven months from diseases that could have been prevented. The British minister of war asked Florence Nightingale to take charge of a hospital near Constantinople, to which many British wounded were taken. She found the hospital filled with gas from open sewers. Nothing was clean. There was no proper food or clothing for the sick. When she came, forty-two out of every hundred sick and wounded soldiers were dying. Only

two out of one hundred died after she had cleaned the hospital and trained her cooks and nurses.

She herself received the sick and wounded soldiers and saw that they got the proper nursing. She says



FLORENCE NIGHTINGALE NURSING THE WOUNDED

there were "four miles of beds not eighteen inches apart." She was often on her feet twenty hours out of the twenty-four. She was with the soldiers when the surgeon operated. Anæsthetics were not yet in common use. Many a man said that he could not have stood the pain if she had not been beside him.

At night she lighted her little lamp and made her rounds to see if the men wanted anything. One patient wrote these words home : "What a comfort it was even to see her pass. She would speak to one, and nod or smile to as many more ; but she could not do that to all, you know. We lay there by hundreds ; but we could kiss her shadow as it fell, and lay our heads on the pillow again, content."

The British public almost worshiped her as a saint when her work became known. Under her care the death rate for the British soldiers abroad was only two thirds as much as for the troops in camps at home. Queen Victoria ordered a warship to bring her to England at the end of the war. She did not like such attention ; so she came back secretly and reached her home before any one knew she had returned.

Her Influence

As a monument to her, the nation raised a large sum of money, called the Nightingale Fund, and gave it to her for a training school for nurses. Her written account of her experiences in nursing the British soldiers and her *Notes on Nursing* laid the foundation for modern methods of nursing, both in war and in peace. She awoke the world to the value of careful training for nurses in schools for that purpose.

When Florence Nightingale was young, nursing was

thought to be unfit for a well-bred girl. The uniform of the trained nurse has seemed a badge of honor since she wore it.

More than any other person, she was the founder of modern methods of nursing. It is for this reason that schools of nursing in the United States regularly honor May 12 as the birthday of Florence Nightingale.

Perhaps the Swiss doctor who founded the Red Cross gave Florence Nightingale her greatest praise. He said that her work while nursing soldiers made him wish to establish the Red Cross.

Clara Barton

Clara Barton (1821-1912) was living in the United States during the same years that Florence Nightingale was living in England, and she also nursed the sick and wounded. She was born near Oxford, Massachusetts, on Christmas Day and was heartily welcomed as a Christmas present into a family of four older brothers and sisters. They all helped to educate her; the girls, in geography and literature, and one brother, in mathematics. It fell to her other brother, David, to teach her the things that made her best known. It happened in this way.

Her father, Captain Stephen Barton, had been a soldier but he was running a farm and raising fine horses

at the time of her birth. Her brother David liked horses and could manage them so well that he could have ridden in a Wild West show. He took Clara to the pasture when she was five years old, put her on the back of a colt, and sprang on another himself. He held the reins of both colts with one hand and one of her feet with the other hand while they galloped away without saddles. He called to her to cling to the mane of the colt. These gallops became as wild as if the colts were running away. But she never was thrown. She wrote when she was past sixty: "To this day my seat in a saddle or on the back of a horse is as secure and tireless as in a rocking-chair and far more pleasurable. Sometimes when I later found myself suddenly on a strange horse in a trooper's saddle, flying for life or liberty in front of pursuit, I blessed the baby lessons of the wild gallops among the beautiful colts."

One day when Clara was eleven years old, David was helping to raise the frame for a barn. A board broke, and he fell from a height. For a long time he lay at death's door. Clara, who had lived an outdoor life on a farm, now took her place at his bedside as nurse for his two years of helpless suffering before he became well. During that time she left his bedside only half a day.

David thus prepared her in two ways for her future

life. (1) He made her a fearless horsewoman. His training helped to save her life and that of others when she was nursing in the Civil War. (2) His accident gave her practice and skill in nursing.

Clara Barton was both very timid and very brave. She was so timid as a child that she would not ask for a second helping of food when she was hungry. She was very shy in the presence of people. When she was doing things for other people, she forgot herself and was brave. She was brave when at eleven years she nursed her brother. She was brave when she taught a district school at the age of sixteen and kept perfect order among the big boys. She was brave when the Civil War broke out, and she knew that she was needed by the soldiers out on the firing line.

The Angel of the Battlefield

Her health failed while she was teaching. At the beginning of the Civil War, she was working in the Patent Office in Washington, D. C. She was at the railroad station one day and saw soldiers returning from battle, some on stretchers, some on crutches, some dying. Among these boys were old pupils. She wrote to a newspaper about their needs and received supplies in such quantities that she had to get another room to hold them. She helped also with the wounded who were landed from boats and taken to the hospital

in Washington. She knew that the worst suffering was on the battlefield, and she begged officials to give her permission to go there. All said it was no place for a woman. She went to her father's deathbed and asked his advice. This brave old soldier replied: "If you believe that it is your duty, you must go to the front. You need not fear harm."

At last she received permission from the government to follow the cannon and to begin her field nursing. She was especially noted for her plans to get supplies quickly to wounded soldiers on the battle front. She did not wait for the soldier to be taken to the hospital; she took the hospital to the soldier.

She was at one of the greatest battles in 1862 before the first shot was fired. The field was soon covered with wounded men. A surgeon said to her: "We have no string and only green corn leaves for bandages for the wounds of these men bleeding to death." She laid down before him a supply of bandages and string. She turned to raise a man's head from the ground to give him a drink. Just then a bullet whizzed by and passed through her sleeve.

At night the doctor said: "Here are a thousand wounded men; five hundred of them cannot live until morning without attention. I have only two inches of candle to examine them with."

"Here are four boxes of candles," she replied.

Barton became its first president. That office is now held by the President of the United States.

The American Red Cross is Miss Barton's monument. The European Red Cross was organized for



American Red Cross

RED CROSS RELIEF WORK

A Red Cross nurse bandaging injured refugees from a hurricane in Florida, 1928.

service in time of war. To Miss Barton belongs the credit of making it as useful in peace as in war. During the time of Miss Barton's presidency (1881-1904), the Red Cross sent aid almost every year to relieve suffering in some part of the United States, — to places ravaged by tornadoes, yellow fever, floods, fire, and earthquake. It sent relief to the Armenians in Asia ;

it helped Cuba during the Spanish American War, and it was found in every camp and battlefield during the World War. The Red Cross is to-day sending aid wherever it is quickly needed on a large scale.

Miss Barton's busy mind started another service of kindness, known to most boys and girls. It is "First Aid to the Injured." She felt this service to be necessary because, as she said, "People are meeting with dreadful accidents every day. Men fall from the tops of buildings where they are at work; houses are set on fire, and people are terribly burned. The workers in factories are often suddenly injured." Her idea of "First Aid to the Injured" has spread to such organizations as Boy Scouts, Girl Scouts, Red Cross, and Girl Reserves, so that everywhere, in case of sudden need, some one can be found who knows "First Aid."

Clara Barton lived to be over ninety years old. Before she died, she received twenty-seven medals for relieving suffering. Among the countries that sent them to her were Russia, Turkey, Germany, Serbia, Spain, Belgium, and Armenia. She was asked late in life how she bore all her hard and disagreeable tasks. "By forgetting myself," she replied.

The Map of Kindness

We should draw a Map of Kindness to learn how kind the world has become in the second quarter of the

twentieth century. The United States, the states, counties, cities, towns, and persons all share in doing something for those who need help. This map will teach us more than maps of battlefields.

Take a large piece of paper. Make a circle in the center of the paper, the size of a silver half dollar. Write the word KINDNESS in the circle. Make a large circle around the little circle, as large as the paper will hold. This outside circle represents the boundary of your city, town, or county. From the center circle to the outside one, draw a line like the spoke of a wheel. Write on one side of this line the name of some one activity that shows the modern spirit of kindness. The activity which you first select may be "Looking after families in trouble," "Providing a free hospital for crippled children," "Sending public health nurses free of charge," "Providing free milk for babies," "Protecting growing children," "Preventing cruelty to animals," or it may be an "Open-air school," a "Public playground," or a "Juvenile court."

Draw as many lines out from the center circle as you have activities in your community. When you have finished this wheel, it will be a Map of Kindness of your community. Every one of the activities will show one of the ways in which the world is growing kinder. Former centuries had very few of the activities that appear on your map.

A World Map of Kindness can also be drawn in this twentieth century. The wheel of this world map now has many spokes, and they increase from year to year. The first spoke would be for the Red Cross, since its acts of kindness reach to almost all parts of the world. Another spoke may be drawn for the Junior Red Cross. Through the exchange of letters by the Junior Red Cross, children of many nations learn about each other's ways and form lasting friendships.

Another spoke may stand for the League of Nations. It aims to prevent war between nations, to control the sale of opium, and to protect women and children going from one nation to another.

The next spoke may show the name of the Rockefeller Foundation which was established (1913) "to promote the well-being of mankind throughout the world." It gives millions of dollars to schools for training nurses in foreign lands. It gave to China a medical college which is educating the Chinese in modern medicine. It studies the causes of disease and tries to prevent it in all parts of the world.

The Carnegie Endowment for International Peace may also have a spoke. The purpose of this endowment is to study the causes of war, to cultivate friendly feelings between the inhabitants of different countries, and to try to show nations that peaceful ways are best for settling disputes.

The World Court may some day prove to be a very strong spoke. This court settles quarrels between nations in much the same way that disputes between individuals are decided by courts of law. We may



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THE SINGING TOWER, MOUNTAIN LAKES, FLORIDA

draw another spoke for the Kellogg-Briand Treaty (p. 328).

You will often find the need of adding new spokes to the wheel in your map to show the new ways of being

kind. For instance, Edward W. Bok, a wealthy editor and author, laid out in Florida the Mountain Lakes Sanctuary for birds. He planted the sanctuary with shrubs and trees that grow berries to feed the birds. Many migrating birds rest there and become strong enough for their flight to the West Indies and other southern lands. Most of the very few flamingoes in our country are safe there. In the sanctuary he built the Singing Tower, one of the most beautiful buildings in the world. You might add a spoke for this sanctuary for birds.

The lives of Dorothea Dix, Florence Nightingale, and Clara Barton show how three women helped the world to grow kinder. We should all realize that by working together, people and nations multiply their efforts to make the world kinder and to bring about happiness and peace. Our Maps of Kindness show some of these multiplied efforts.

By hunting for some little thing to do for our family, classmates, neighbors, and animals, each one of us may help the world to grow kinder every day. Let us memorize these four lines from *The Ancient Mariner*, written by an English poet, S. T. Coleridge :

“He prayeth best who loveth best
All things both great and small ;
For the dear God who loveth us,
He made and loveth all.”

THINGS TO DO

Watch carefully for little acts of kindness each day and be able to report them in class.

Some girls may be able to make and wear in class a nurse's cap, such as Miss Nightingale wore. They may then write and act a simple play in which they take the part of her trained nurses.

The teacher should have a list of injuries that may happen. She may call to an imaginary stage in the front part of the room girls and boys in rapid succession to tell how they would give "First Aid to the Injured" in each case.

Draw in class a Map of Kindness of your city, county, town, or district. Next, draw a World Map of Kindness.

Explain how and why the Red Cross came to America and why you have put it in your Map of Kindness.

SOME BOOKS THAT WILL HELP YOU

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McFee, I. N., *Story of Florence Nightingale*.

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